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ABSTRACT

Representing current viewpoints of academics, futures experts, and social observers, this external environmental forecast presents projections and information of particular relevance to the future of Catonsville Community College. The following topics are examined: (1) population changes and implications for higher education; (2) state and local demographic changes; (3) the national economy; (4) inflation; (5) interest rates; (6) unemployment; (7) the short- and long-term national economic outlook; (8) national growth and labor force projections; (9) the work ethic in the 1980s; (10) the social-political climate of the 1980s and 1990s; (11) the state and higher education; (12) the current condition of higher education; and (13) the future of postsecondary education. For each topic, corollaries are presented, drawing plausible inferences from the reading and analysis of the information in the preceding section. (LAL)

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EXTERNAL ENVIRONMENTAL FORECAST

Prepared: August, 1985

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JC 850 544

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INTRODUCTION

This external environmental forecast will present information on the short and long-term future of areas of particular interest to the future of Catonsville Community College. These areas include: (1) national and local demographic changes and implications for higher education; (2) the national and local economy; (3) national and local short-term and long-term occupational growth and labor force projections; (4) the social and political climates and changes in the years ahead; (5) the future of postsecondary education; and (6) the State of Maryland and higher education; (6) the current condiction of higher education; and (7) the future of postsecondary education.

The information in each area is drawn from diverse publications and oral presentations, and is representative of current viewpoints held by academic and related experts as well as respected social observers. At the conclusion of each content area a number of corollaries are presented. These corollaries are plausible inferences which can be drawn from the reading and analysis of the information in the preceding section. The corollaries are not exhaustive nor were they meant to be.

They may be contradictory as well, which stems from including contradictory information, which may lead to differing interpretations, which results in a variety of proposed solutions to a problem or concern. The fact that contradictions appear is not a negative outcome but rather a positive consequence. Contradictory corollaries should dispel "the one best way" to perceive and act and provide for creative thinking and alternative suggestions for action.

Forecasting is an area fraught with problems. James O'Toole, in a recent article "How to Forecast Your Own Working Future," offered two reasons why futurists are often wrong in their forecasts. Many labor economists assume the future is going to be a simple extrapolation of current trends in areas such as employment, energy, inflation, etc but experience teaches us that the future is full of surprises. The following two examples illustrate the element of surprise:

> Sunbelt growth: The common wisdom. - The U.S. Sunbelt will continue its strong economic growth while the North continues to suffer. What may really happen. - Previous expansion of manufacturing in the South has made that region vulnerable to the same business cycles as the North. With the slowing energy boom and greater similarity in taxes, wage rates, and urban problems, the Sunbelt's future growth rate may not differ dramatically from the North's.
>
> The elderly: The common wisdom. - The elderly will have little discretionary buying power. What may really happen. - Retirees of the 1980's and 1990's will be better educated than previous generations and have held better paying jobs with a higher percentage of vested pensions. Since many retiring couples will have two full Social Security and pension incomes, they will have more discretionary income, and the vitality to spend it.

Most futurists base their forecasts on a singular view of what will transpire rather than an array of alternatives, because that would never sell. An example of this can be found in predictions about the tourism industry:

> "The tourist industry has been growing steadily since the end of World War II, and many futurists have predicted that it will be the world's largest industry by 2000. Figures recently released by the U.S. Travel Data Center in Washington, D.C., give new credence to this prediction. Travel and tourism is now the second largest retail industry in the United States, reports the center. Only food stores took in more money in 1983, with automotive dealers dropping to third place. In 1980, travel and tourism generated more U.S. jobs than any other private industry except health services."

Yet according to a recent study by International Resource Development, Inc., advances in electronic information delivery could drive the traditional travel agent out of business by 1995!

As O'Toole maintains, what is probable is that no single version represents a certain future. In fact, there is no single future; there are only alternative futures. Despite the limitations in predicting the future, Edward Cornish of the World Future Society, believes there is merit in doing so:

> "Can the future be predicted? Scholars may respond yes, no, or maybe-depending on their mood or frame of reference-because the question is ambiguous. Some people use the word "predict" to indicate an absolutely precise, infallible knowledge about the future. Since people are fallible and make incorrect statements about the future (just as they make incorrect statements about the past), it is correct to

say that no one can predict the future. But the word "predict" is also used in the sense of making a forecast of what will happen, that is, a statement about what one thinks will happen, even though one concedes that one may be wrong; in this latter sense, many future events can be predicted. A person crossing a street predicts that the passing automobiles will stop when the traffic light changes from green to red; in some instances, he may be wrong, but in most instances he is quite correct in his prediction. Thus it is also perfectly correct to say that the future can be predicted."

Population Changes and Implications for Higher Education

The Chronicle of Higher Education, (March 14, 1984) reported that the number of Americans graduating from high school will hit a low of about 2.3 million in 1992. Nationwide, the number of people graduating each year is expected to drop by 14% from 1981 to 1986, from 2.9 million to 2.5 million. The number is then expected to rise slightly reaching 2.6 million in 1988, before dropping again to the low of 2.3 million in 1992 and then climbing again to almost 2.7 million by the year 2000. The climb in the late 1990's reflects an "echo" baby boom-the children of the earlier baby-boom generation. Recent evidence released by the Census Bureau appears to support this climb as the nation's preschool population increased 9% between 1980 and 1984. The percentage of those in Maryland under age five soared 10.5%.

The downturns will be steepest in the Northeast. By 1999 the number of Northeast graduates is projected to be 30% below the 1981 level. Maryland is projected to have a decline in graduates of 20% between 1981 and 2000.

Michael O'Keefe (Change, May/June 1985) notes that higher education has not experienced the severe decline in enrollments that experts have predicted would occur after 1979. But he maintains that enrollments have not dropped in part because the decline in the total pool from which colleges enroll has barely begun. Most of the decline due to demographic shifts still lies ahead.

The major decline in births was almost completely a caucasion phenomenon. Birth rates for minorities have stayed even. As a result, American public schools are now more heavily enrolled with minority students, large numbers of whom will be college eligible. For example, in Fall 1980 33.5% of students in Maryland public schools were from minority groups.

Any surges of new enrollments during the next two decades in higher education will be led by minorities, particularly blacks and hispanics, and they are more likely to enroll in community colleges. Yet minorities have a higher attrition level than whites and are often underprepared for college. This may be related to recent findings that black and hispanic enrollments are either leveling off or declining. Although there are a number of reasons for this, Harold Hodgkinson, (Change, May/June, 1985) believes the most important reason is that a high school diploma pays off in direct access to the job market, while a college degree is not only a big investment, but an investment on which the return is less clear. In "Guess Who's Coming to College," he maintains that the higher education community needs to do everything to make sure that the largest possible number of minority students do well in public school and thus become college eligible.

According to the 1980 census the median age is 30 and will rise sharply over the next three decades. During the 1980's, the 35-44 age group will increase by 42%. David Breneman in "The Coming Enrollment Crisis" maintains that projecting enrollments for the population over age 25 is risky. One reason is an assumption that the sharp increase of female enrollments is a one-time "catching-up" phenomenon that will not repeat itself. A second reason that adult enrollments may grow less rapidly in the

1980's is the expiration of GI bill benefits for Vietnam veterans. A similar caution applies to foreign students, few of whom enroll in humanities or education programs where excess capacity currently exists.

When looking at future enrollment opportunities it should be remembered that 83% of the adult population does not hold a bachelor's degree, 25% of high school students do not complete high school and women comprised more than half of the total credit enrollment in community colleges in 1983.

According to Breneman strategies for increasing enrollments in the years ahead include:

Increased credentialing by testing of high school dropouts;
Increased enrollment of low- and middle-income students;
Increased enrollment of minority youths;
Increased enrollment of traditional college-age students;
Increased retention of current students;
Increased enrollment of adults;
Increased enrollment of women aged 20 to 34;
Increased enrollment of men aged 35 to 64;
Increased enrollment of persons currently being served by industry;
Increased enrollment of foreign students.

He believes the most promising strategy for boosting enrollment of younger people is to increase retention rates of those already enrolled. He also believes that for the foreseeable future, federal student aid will be less plentiful and a less reliable source of support. This may, however, result in an increase of enrollment in community colleges, as students choose to "stretch" existing student aid by attending less expensive two-year institutions.

This factor, along with the significant rise in costs to attend private colleges and universities, may be responsible for the findings of a recent survey (Higher Education Daily, August 8, 1984) released by the National Institute of Independent Colleges and Universities. Of those parents surveyed, more than a third would like to send their children to a private college or university, but less than a sixth expect to be able to afford to do so. Furthermore, about 9% of parents surveyed said they want their children to attend two-year schools, but 18% expect their children to do so.

Higher Education Daily (October 18, 1984) reported that a recent study found that 63% of those surveyed said general federal aid to higher education should be increased and 61% said federal student aid should be higher.

Breneman forecasts an upturn in the labor market for college graduates. All else being equal, a reduced supply of college graduates should lead to a stronger market for their services; an improved market, in turn, may help restore student interest in liberal arts fields that have suffered in recent years.

This view contrasts with that of the Bureau of Labor Statistics BLS), U.S. Department of Labor. As reported in The Washington Post, May 5, 1985, the latest BLS projections covering the 1982-95 period indicate that the steep competition that characterized the job market for college graduates in the 1970's and early 1980's is not expected to abate appreciably. A surplus of about four million college graduates is expected to enter the labor force during this period and most will enter occupations that do not require a degree for entry. In addition to new graduates the job market will be more competitive to the extent that currently underemployed graduates will vie with future entrants for college level jobs. However, this situation is not likely to dissuade people from pursuing a college degree since many parents still seek a college education for their children. The noneconomic advantages of a college education (personal development, broadening interest, etc.) remain undisputed, and college graduates, on average, do fare better than nongraduates in the job market. The Census Bureau recently estimated that the higher the level of education achieved, the greater the expected lifetime earnings. Related to this projection, The Chronicle of Higher Education (April 25, 1984) reported that a growing number of adults, many of them older people with college degrees, are returning to the nation's campuses for continuing education in the liberal arts. Although the largest share of continuing education students are still taking career-related subjects, the number of those currently employed who are taking liberal arts courses will continue to grow in response to the desire for a learning component that enriches life. Research indicates that the more education a person has, the more he or she will seek, and since the number of people having some college experience is increasing, there is room for optimism.

Most observers believe that public community colleges are favorably positioned to "weather the storm" due to their low prices, their ability to serve the adult-part time populations, and their flexibility. However, as reported in The Chronicle of Higher Education, (May 23, 1984) and elsewhere, community, technical, and junior college enrollments are leveling out after many decades of explosive growth. Experts believe future growth will be modest and will likely remain level. In the early 1980's, when the country was experiencing an economic recession and fewer jobs were available, community college enrollments grew. As the recession eased and jobs opened up, many students left colleges to go to work. As the economy continues to improve, community college enrollments will continue to be so affected.

A recent American Council on Education study of majors planned by the entering freshmen class of 1984 indicated that many plan to major in career oriented fields that are in high demand in the labor market. Young people are looking for short-term payoffs which is related to the fact that professional schools face an era of declining applications and reduced enrollments. However, the proportion of students who plan majors in the humanities and social sciences has remained stable over the last few years, at 7-8% of freshmen.

The Chronicle of Higher Education (September 19, 1984) reported on the results of a nationwide survey which indicated that college officials expect continued growth during the next five years in the number of continuing-education programs in business and management.

The data suggest that in the 1980's there will be far fewer young people to fill entry level positions in the work place. Unemployment among the young will likely decline, although high minority youth unemployment may well persist. Since entry level worker shortages will grow, existing youth will be most attractive as workers. Businesses seeking new employees will be increasingly dependent on the secondary and postsecondary educational systems. This is a major reason why businesses are more interested in colleges today than previously.

This may also mean, as Hodgkinson suggests, that many young people will be able to move directly from high school to a well-paying job -- either bypassing college entirely, or deferring college for a few years, or getting a postsecondary education from their employer.

Postsecondary education provided outside of colleges and universities is extensive. According to the College Board, about 50% of all American adults are taking some form of organized instruction, but only a small percentage of the total learning occurs in a college setting. If one-quarter of these 46 million adults now being educated had decided to take their education programs at a college, there would be no decline in enrollments in higher education.

The New York Times (January 28, 1985) reported that educational programs run by business and industry have become a $60 billion dollar booming industry that constitutes an alternative, if not a threat, to traditional colleges and universities. In fact, at least 18 corporations and industry associations have been authorized to grant academic credentials, ranging from associate degrees to doctorates.

A recent ASTD study reports that about 68% of job-related courses are given on site by employers for their employees and 32% at outside educational institutions. The authors of the report indicate that "there is no category of course that employers feel unable to provide" among the 14 categories surveyed, from the arts to physical education. Nearly 40% of in-house courses, however, were in business and 19% in engineering. Of the training done at outside institutions, 63.5% took place at schools and colleges. The schools' share of employee training breaks down into 35% for four-year colleges, 19% for two-year colleges and 7% for vocational, trade or business schools. The study reported that "four-year colleges and universities were favored by professional, managerial and sales workers. Two-year colleges and technical institutes were used more by clerical, service, and blue-collar workers. Vocational and trade schools were utilized by significant numbers of craft workers." Colleges and universities must compete more than ever with other providers of postsecondary education, as corporate education programs have cut into the adult-student population often served by higher education.

A problem in pursuing this may be industry lack of faith in higher education to do training. Industry has increasingly accepted the responsibility for training. Peter Drucker writes, "Indeed, the fastest growing industry in American today may be the continuing professional education of highly schooled adults. Much of it takes place outside the education establishment...." The Wall Street Journal wrote, "U.S. Industry cannot leave a retraining program of these dimensions to a public education system that is having trouble teaching simple English and elementary mathematics."

Further complicating the situation is the spectacular explosion of children reared in single-parent familes. In 1980, the census reported that of those children being born in 1980, 48% would be raised by a single parent. According to Hodgkinson, new research has established that children from single-parent families have a greater deal of difficulty learning in schools -- they are more likely to be discipline problems and their level of school achievement is considerably lower than that of two-parent children. Thus, he believes, there is good reason to believe that a large segment of the current early elementary school class of the 1980's will be unable or unwilling to consider college when they are 18.

There are two age cohorts that may provide sources of greater enrollment. As noted earlier, there is a bunching of the prime-age workforce of people 35 to 44. Between 1980 and 1984 the nation's 35-44 age group grew 19.5% and it will increase further. This concentration will lead to intense competition for promotions coupled with career disappointment for many. Keener competition for promotions and restricted job mobility may prompt difficult career choices, and many may be forced to reassess their goals. Some may lower their life expectations while others may rearm themselves against workplace competitors with more education.

The National Center for Education Statistics predicts that older students will account for 47% of enrollments by 1990. One out of two traditional full-time students receives some financial aid, whereas only one out of five part-time students receives federal aid. While colleges can't adjust the financial aid standards for federal and state aid, they can distribute institutional aid based on a formula that is more sensitive to older part-time students. Colleges can help students find other sources of funds such as veteran's education benefits and welfare. For working students who get reimbursed for courses after they have been completed successfully, colleges could establish a short-term loan program or tuition deferral plan to help the students get by until the company pays the money.

We are also encountering a rapid growth of people over 65, of whom there will be 30 million by 1990. By 2010 they are expected to number 39.3 million, almost 14% of the population. Hodgkinson believes we have given little sustained attention to the educational needs of this rapidly increasing group. He notes that we might consider whether the elderly have any rights to student financial assistance if they wish to take courses or enroll for a degree. Normal arguments for investing in human resource development (such as higher economic productivity) don't readily apply, yet their education needs may be very real and important. Our elderly population will continue to improve in general health and vitality and will want to play a significant role in American life. The Baltimore Sun reported that America's elderly have seen their overall economic status improve more than that of any other population group in recent years. But accompanying this overall improvement is a widening gulf between the elderly "well off" and the elderly poor. Those who worked in the prosperous 1950's and 1960's are doing considerably better than those who retired earlier after working through the Depression.

The numbers of elderly will be formidable and they vote in large numbers. If they believe or are led to believe that their role in America will or should grow, they may enroll in higher education institutions to fulfill their personal development. If so, then higher education may become a major issue on their agenda.

Increasing numbers of minority students entering the labor force, the bunching of the prime-age workforce, and increased numbers of older persons in the population and in the labor force may result in tension and conflict with issues such as affirmative action, retirement, career advancements, etc., in the years ahead.

State Demographic Changes

The 1980 Census showed that 4,216,975 people resided in the State of Maryland as of April 1, 1980. By July, 1984, it was estimated that this number had grown to approximately 4,349,000 an increase of 3.1 percent over the April 1, 1980 total. According to a report in the New York Times (April 28, 1985) the mid-decade estimate of Maryland's population is 4,342,562.

One significant area of change in Maryland's population occurred in the population aged 65 and over. An increase of 34.1 percent since 1970 in this age category reflects the fact that Maryland residents, like those across the country, are living longer. This is a trend which is likely to continue as life expectancy continues to increase.

In contrast to the substantial growth in the elderly population, the younger population of Maryland has declined sharply. This results in part from the steep decline in the birth rate which occurred during the 1960's and early 1970's. Consequently, the population aged 5 to 17 has declined by a rate of 18.4 percent since 1970. The 18-to-44 age group continues to increase. By contrast, the population in ages 45-to-54 is declining slightly as a result of the decline in births during the depression years. Baltimore's employable populations (age 20-64) should increase to 62% by 1988. Table 3A documents many of these changes. Table 6 projects population increases by regions and political subdivisions through 1986.

TABLE 3A. ESTIMATED MARYLAND TOTAL POPULATION BY AGE GROUP, REGION, AND POLITICAL SUBDIVISION, JULY 1, 1981

Region and Political Subdivision	All Ages	TOTAL POPULATION BY AGE					
		Under 1	1 - 4	5 - 17	18 - 44	45 - 64	65+
Maryland State	4,255,400	59,660	228,170	871,870	1,844,520	844,780	406,400
Northwest Area	340,570	4,580	17,400	67,520	140,880	70,110	40,080
Garrett	27,380	400	1,550	5,890	10,930	5,370	3,240
Allegany	80,230	970	3,280	14,060	30,130	19,180	12,610
Washington	112,560	1,390	5,360	21,850	46,340	23,920	13,700
Frederick	120,400	1,820	7,210	25,720	53,480	21,640	10,530
Baltimore Metro Area	2,182,420	30,420	115,850	438,070	929,420	443,850	224,810
Baltimore City	776,100	12,150	44,340	155,270	308,710	154,570	101,060
Baltimore County	658,390	7,800	31,530	122,280	275,300	149,710	71,770
Anne Arundel	376,200	5,400	20,760	78,900	173,040	71,910	26,190
Carroll	100,270	1,330	4,750	20,730	45,060	18,860	9,540
Howard	124,890	1,710	6,660	27,450	60,950	21,700	6,420
Harford	146,570	2,030	7,810	33,440	66,360	27,100	9,830
National Capital Area	1,257,620	17,860	67,960	263,870	578,710	238,720	90,500
Montgomery	590,530	7,420	29,570	120,510	253,860	126,100	53,070
Prince George's	667,090	10,440	38,390	143,360	324,850	112,620	37,430
Southern Area	173,980	2,840	11,800	44,090	76,640	27,180	11,430
Calvert	36,950	570	2,270	8,650	15,840	6,640	2,980
Charles	77,200	1,200	5,030	20,140	34,900	11,660	4,270
Saint Mary's	59,830	1,070	4,500	15,300	25,900	8,880	4,180
Eastern Shore Area	300,810	3,960	15,160	58,320	118,870	64,920	39,580
Cecil	61,200	820	3,580	14,720	24,570	11,760	5,750
Kent	16,930	200	730	2,900	6,650	3,850	2,600
Queen Anne's	26,760	350	1,330	4,910	11,010	5,990	3,170
Caroline	23,340	340	1,200	4,720	9,000	4,890	3,190
Talbot	26,780	320	1,190	4,500	9,920	6,280	4,570
Dorchester	30,400	380	1,460	5,690	11,130	6,870	4,870
Wicomico	64,890	900	3,290	12,020	27,100	13,630	7,950
Somerset	19,030	260	910	3,390	7,120	4,330	3,020
Worcester	31,480	390	1,470	5,470	12,370	7,320	4,460

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TABLE [illegible]. MARYLAND POPULATION ESTIMATE FOR JULY 1, 1981 AND PROJECTIONS FOR JANUARY 1, 1982-JULY 1, 1986 BY REGION AND POLITICAL SUBDIVISION

Region and Political Subdivision	July 1, 1981	January 1, 1982	July 1, 1982	January 1, 1983	July 1, 1983	January 1, 1984	July 1, 1984	January 1, 1985	July 1, 1985	January 1, 1986	July 1, 1986
Maryland State	4,255,400	4,271,600	4,288,100	4,304,600	4,321,100	4,337,700	4,354,200	4,370,900	4,387,900	4,404,900	4,422,000
Northwest Area	340,570	342,700	345,000	347,300	349,600	351,900	354,200	356,500	358,800	361,100	363,400
Garrett	27,380	27,600	27,900	28,200	28,500	28,800	29,100	29,400	29,700	30,000	30,300
Allegany	80,230	80,000	79,800	79,600	79,400	79,200	79,000	78,800	78,600	78,400	78,200
Washington	112,560	113,000	113,400	113,800	114,200	114,600	115,000	115,400	115,800	116,200	116,600
Frederick	120,400	122,100	123,900	125,700	127,500	129,300	131,100	132,900	134,700	136,500	138,300
Baltimore Metro Area	2,182,420	2,188,500	2,194,600	2,200,700	2,206,800	2,213,000	2,219,100	2,225,300	2,231,700	2,238,100	2,244,600
Baltimore City	776,100	770,500	764,900	759,300	753,700	748,100	742,400	736,700	731,000	725,300	719,600
Baltimore County	658,390	660,200	662,000	663,800	665,600	667,400	669,200	671,000	672,900	674,800	676,700
Anne Arundel	376,200	380,000	383,900	387,800	391,700	395,600	399,500	403,400	407,400	411,400	415,400
Carroll	100,270	101,800	103,300	104,800	106,300	107,800	109,300	110,800	112,300	113,800	115,400
Howard	124,890	127,900	130,900	133,900	136,900	140,000	143,100	146,200	149,300	152,400	155,500
Harford	146,570	148,100	149,600	151,100	152,600	154,100	155,600	157,200	158,800	160,400	162,000
National Capital Area	1,257,620	1,260,800	1,264,100	1,267,400	1,270,700	1,274,000	1,277,300	1,280,700	1,284,100	1,287,500	1,290,900
Montgomery County	590,530	593,600	596,700	599,800	602,900	606,000	609,100	612,300	615,500	618,700	621,900
Prince George's	667,090	667,200	667,400	667,600	667,800	668,000	668,200	668,400	668,600	668,800	669,000
Southern Area	173,980	176,700	179,500	182,300	185,100	187,900	190,700	193,500	196,400	199,300	202,200
Calvert	36,950	37,700	38,500	39,300	40,100	40,900	41,700	42,500	43,300	44,100	44,900
Charles	77,200	78,600	80,000	81,400	82,800	84,200	85,600	87,000	88,500	90,000	91,500
St. Mary's	59,800	60,400	61,000	61,600	62,200	62,800	63,400	64,000	64,600	65,200	65,800
Eastern Shore Area	300,810	302,900	304,900	306,900	308,900	310,900	312,900	314,900	316,900	318,900	320,900
Cecil	61,200	61,500	61,800	62,100	62,400	62,700	63,000	63,300	63,600	63,900	64,200
Kent	16,930	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000
Queen Anne's	26,760	27,200	27,600	28,000	28,400	28,800	29,200	29,600	30,000	30,400	30,800
Caroline	23,340	23,500	23,700	23,900	24,100	24,300	24,500	24,700	24,900	25,100	25,300
Talbot	26,780	26,900	27,000	27,100	27,200	27,300	27,400	27,500	27,600	27,700	27,800
Dorchester	30,400	30,500	30,600	30,700	30,800	30,900	31,000	31,100	31,200	31,300	31,400
Wicomico	64,890	65,500	66,100	66,700	67,300	67,900	68,500	69,100	69,700	70,300	70,900
Somerset	19,030	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000	19,000
Worcester	31,480	31,800	32,100	32,400	32,700	33,000	33,300	33,600	33,900	34,200	34,500

The racial composition of Maryland's population has shifted dramatically over the past decade. While the white population of Maryland declined by 1.3 percent between 1970 and 1980, the group encompassing all other races has grown by 43.8 percent.

During the past ten years, Howard County has been the subdivision which has experienced the greatest rate of growth. Through this period, the population of Howard County has grown by 54,420, an increase of 91.8 percent. Although Prince George's remains the most populous of Maryland's counties, Baltimore County is very close to it in population and may surpass it during the current decade.

Baltimore City, while remaining Maryland's most populous subdivision, continued to lose population. Since July 1, 1970, Baltimore City has experienced a 13.4 percent decline in population, a loss of 106,888 people. The rate of decrease, however, appears to have slowed toward the end of the past decade. Overall, the Baltimore metro area population is estimated to be 2,244,700, an increase of 2.1 percent since 1980, and most experts predict growth will continue through the 1980's.

Much of Maryland's growth occurred in the areas on the outer fringes of the metropolitan areas. Calvert, Cecil, Charles, Queen Anne's, Talbot, Frederick and Montgomery counties have experienced rapid growth while the growth of Prince George's has slowed. Carroll, Howard, Harford, and Anne Arundel counties have grown more rapidly than the state as a whole. In fact, Anne Arundel County is one of the fastest growing areas in Maryland. Baltimore County, immediately surrounding Baltimore City, grew at a pace below that of the state as a whole. This reflects national trends which indicate continued deconcentration of the population, with people moving from cities and older suburbs into exurban areas.

Local Demographic Changes

Eric Garland, author of "The Changing Face of Our Neighborhoods," Baltimore Magazine, April, 1984 analyzed the 1980 census and reported the following: (1) Baltimore County's 65 and older cohort increased its ranks by 51.8%; (2) The concentration of elderly is in Towson with clusters in Cockeysville and the Liberty-Reisterstown Roads corridor; (3) Many elderly are choosing "life care" communities in the suburbs and traditional nursing homes; (4) Many elderly are financially healthy; (5) Between 1970 and 1980, the area's Asian-born population rose 29.6% to 17,128 and its Latin-American born population increased 65% to 7,670; (6) The local Asian population is financially secure and well educated, as are the Hispanics.

In the 1980's more blacks will make their way into Baltimore County, beyond the Randallstown area. Both White Marsh and Owings Mills are expected to lead the way for county housing and business expansion and construction growth. Owings Mills is likely to be a high-density area with new housing and the adjacent areas of Reisterstown, Pikesville, and Randallstown are expected to double their housing complements.

Still, the predominant movement in the metro area is outward. Baltimore County areas such as Randallstown, Owings Mills, Cockeysville, Perry Hall, White Marsh, and developments along I-70 in the west have grown in the mid and late 70's. Due to the outward flight the County continues to lose residents to Harford, Carroll, Anne Arundel and Howard Counties. The Regional Planning Council predicts that by 2005, Baltimore County will experience the lowest population increase in the metro area, about 8% to 710,000; while Carroll County will increase 33% to 129,000. The population increase in Carroll County has made some county residents skittish about the prospect of growth. The Baltimore Sun (February 17, 1985) indicated that the county administration plans to center new growth around developed areas in the existing towns of Westminster, Hampstead, Manchester, New Windsor, Taneytown, Mount Airy, Sykesville and Union Bridge.

COROLLARIES

Assess the most favorable strategies for CCC to follow to increase enrollment, among them:

1. Encourage new market growth among the following:
    - minority youth - expecially the large number of Asians in the Baltimore area
    - "middle age" prime labor force participants
    - senior adults
    - women - with increases in the under age five cohort raised in families in which mothers work, there may be greater pressure on CCC to provide childcare
    - handicapped
    - foreign students
    - military personnel
2. Increase retention rates of those already enrolled. The number of high school graduates directly entering two-year colleges is likely to decrease substantially unless marketing

strategies attract a larger percentage of this diminished population base.

- Experimenting with early admissions may be necessary
- Contracting with local school districts to provide occupational and other programs for high school students.

Increased linkages with business and industry, senior citizens and minority group associations, and voluntary groups in general to provide educational programs and services to their members.

3. Increased efforts to provide second careers and new career programs for those in the prime-age labor force categories whose mobility has been blocked may provide a new market.

4. Increased attention to theories and practices of adult education and adult learning might increase the College's attractiveness to the adult learner.

5. More attention to flexible times and locations for instruction, (i.e., weekend college, on-site courses at offices, shopping centers and other places of employment, cable television, extension centers and services -(especially in some towns in Carroll County retirement communities, etc.)

6. More instruction in career planning, decision-making, interpersonal relations, problem-solving and goal setting for prime-age labor force participants.

7. Often programs for new parents designed to assist them in "bringing up the baby."

8. Development programs designed to train those individuals who will serve non-traditional students, (i.e., interpreter

training).

9. Expand pre-retirement-type programs.

THE NATIONAL ECONOMY

Much of the information regarding the nation's economy is based upon scores of government statistics. Whether it is the index of leading economic indicators or GNP, figures are becoming more volatile and unreliable. Business Week (May 6, 1985) reported that confusion and questions of unreliability has some people discounting government gathered and published data altogether.

Inflation - The Baltimore Sun (June 21, 1985) reported that based upon second-quarter government data, inflation is running at an annual rate of 3.9% so far this year, down from 4% in 1984. Few experts expect any serious increase in coming mouths. According to The New York Times inflation for the rest of the decade will fall within a range of 3 to 6% and the Congressional Budget Office predicts that during the years 1987-1989 it will remain stable at 4.8%. For a return to the double digit levels of the 1970's, analysts say, the economy would have to be swept by a series of shocks, comparable in magnitude to OPEC's price increases of the 70's or the Vietnam War effort. And, it would require that the Federal Reserve compound everything by again keeping money too easy for too long, a concern of some economists who believe the Feds may cave in to White House pressure to finance the mammoth Federal deficit. Some experts predict the inflation rate will rise to 6 to 8% by the end of 1986.

Interest Rates - Interest rates are still high compared with the current level of inflation. Given 4% inflation the prime rate should be between 7 and 8%. A breakthrough on cutting the budget deficit would probably knock down rates quickly. The New York Times maintains that rates will keep drifting slowly lower as the perception that inflation has been conquered. Other economists and businessmen believe that a $200 billion Federal budget deficit will not be reduced satisfactorily and as a result, interest rates will rise.

Unemployment - The BLS reported that the U.S. unemployment rate in July, 1985 remained on a 7.3% plateau for the sixth straight month. This which suggests that no matter how strong the economic recovery, the level of employment is never going to return to what it was in certain manufacturing industries such as steel, auto, rubber, textiles, etc. Factory sector employment is weak (due, in large measure to import competition) while employment growth is stronger in service jobs. Moveover, Business Week (June 24, 1985) reported that as manufacturing declines it will reduce service jobs tied to manufacturing and imports.

According to Newsweek (March 4, 1985) it now appears that a higher jobless rate is here to stay. A number of Federal agencies predict that the nation's overall unemployment rate will hover around 7% through 1987. Other experts predict joblessness to rise to 7.6% through 1986.

Most retraining for dislocated workers is provided by private companies for their own employees, making it even tougher for the unemployed to find work soon. In fact, as Time,(June 25, 1984) reported, Detroit community colleges have had great difficulty placing graduates of their two-year robotics programs because automakers have been giving short courses on that subject to senior factory hands. In a recent Department of Labor study of displaced workers, 45% of those back in full-time jobs were earning less than they had before being laid off, and two-thirds of these reported pay cuts of at least 20%. Fifteen million manufacturing jobs may evaporate over the next 25 years according to management expert Peter Drucker. Furthermore, according to a current government report, by the 1990's employment in such smokestack industries as steel and auto will shrink from the present 20% of the labor force to perhaps 8%.

Another reason that joblessness will remain a problem nationwide is two special groups of unemployed workers -- discouraged workers (those who want to work but are unable to obtain a job, and temporarily give up looking for work) and displaced workers (those "new," structurally unemployed laid off from jobs in declining industries to which they have little hope of being recalled) will search for work in the recovery. As these jobseekers, some previously uncounted in the official unemployment figure, re-enter the labor force, the unemployment rate is not likely to decrease much more. Combined with the traditional high rates of unemployment among young people and minorities, high unemployment rates are likely to persist in the few years ahead.

Ronald Kutscher, Associate Commissioner, of the Bureau of Labor Statistics has projected future unemployment rates into the 1990's. If the U.S. experiences a low rate of economic growth, unemployment will be 6.5% in 1990 and 6.8% in 1995; for moderate economic growth, 6.3% in 1990 to 6% in 1995; and for high economic growth, 5.5% in 1990 to 5.2% in 1995.

Short-Term National Economic Outlook

Depending on the weight ascribed to each sector (unemployment, inflation, interest rates, confidence surveys, etc.) forecasters diverge widely. Some believe the economy will fall into a mild recession, while others anticipate robust activity. Consumers, government officials, business leaders and economists are uncertain about what to expect for the rest of the year.

As reported in Business Week (June 10, 1985) by yearend the current business cycle will be three years old, and on average, the expansion phase of peacetime cycles has lasted for 33 months. Other factors in addition to the cycle's aging lead most business economists to forecast that the current improvement will not last through next year. Economists point to continued large budget deficits, an overvalued dollar, the big and persistent trade deficit, falling industrial production, declining employment and sales in the high-tech sector and a deterioration in the prospects for capital spending. In a survey of its membership, the National Association of Business Economists found that over 40% anticipate a recession before mid 1986. Some expect the slowdown hitting before the end of 1985, while almost 30% expect that the downturn will begin in the second half of next year. But, that still leaves 30% who do not expect the recession until 1987 or later.

As reported in The New York Times, a recently released world economic forecast by Citibank said inflation would rise above 8% in the second half of 1985, and that the economy would slip into a recession by early 1986.

Long-Term National Economic Outlook

According to Business Week (June 3, 1985) and The Futurist (June, 1985) a group of 25 academics at MIT is forecasting that the U.S. will face two severe recessions before the end of the decade. The researchers cite the importance of the Kondratieff Cycle, or economic long wave, with peaks 45 to 60 years apart. This economic long wave is the phenomenon responsible for the great depressions of the past and causes such episodes to occur approximately 50 years apart. Researchers, citing present economic data, argue that another such downturn of the long wave has begun. Most mainstream economists, including those in the BLS, dismiss such a gloomy assessment.1

The New York Times (December 30, 1984) asked its own specialists to identify what they see as the most significant developments for the rest of the decade. A sample of predictions include: a worldwide glut of refining capacity keeping oil prices down,2 an increase in networks of profit-making hospital systems to make caring for the sick a more profitable enterprise, retailers concerned with volatility in consumer tastes and habits will be forced to give better values, a greater need for software engineers for the military, a battle in the years ahead to end the tax-exempt status of state and local government bonds, increases in computer memory capacity and more survival problems for companies in the computer industry.

As stated in the May 30, 1983 edition of Time Magazine, Nobel Laureate Wassily Leontief, Director of NYU's Institute for Economic Analysis foresees mass joblessness as a result of computer and robot technology. Another pessimistic interpretation is offered by Carter Henderson in "The Darkening Outlook for the U.S. Economy." He identifies seven primed forces and their dangers for the economy: loss of control over the federal budget; exhaustion of non-renewable resources; an alarming loss of precious soil; an urgent need to clean up our polluted environment; the increasing vulnerability of our technological infrastructure; an ominous accumulation of debt; and the decline of U.S. industrial supremacy. Failure to live within our means, he warns, could bring on terrible consequences for the nation.

At the other extreme are sanguine views. John Diebold, whose classic 1952 book Automation made the word a familiar term, maintains that "at various times, usually at the depth of a recession, people have said it was going to be horrible from here on because of automation. But a couple of years later, it's all forgotten. Certain types of jobs die and others grow. That is the sign of a healthy economy."

Optimistic predictions characterized a recent meeting of economists of the National Planning Association. They predict that unemployment will decline to 3.8% in 2000, and inflation will abate, leveling off at 4% in the 1990's. Ane overall, the economy will grow at an average real rate of 4% annually for the remainder of the 1980's.

These views are offered only as an indication of the diversity of predictions which prevail in the field of forecasting. Whatever one's preferences, values, or state of knowledge, one can find some support -- somewhere.

Short-Term National Occupational Growth and Labor Force Projections

Growth will continue to occur in service and information sector areas, broadly defined as transportation, communications, public utilities, trade, finance, insurance, real estate, other services, and government. Strong growth will be notable in wholesale and retail trade, business services, and medical services. These areas are projected to account for almost 75% of all new jobs through 1995.3 The number and percentage of jobs in manufacturing and agriculture will continue to decline. For example, the percentage of workers in the goods producing segment of the economy will drop from 35% to 32% through 1995.

In the period 1984 through 1995, the BLS, using a middle growth trend, expects the creation of 25 million jobs, many of which do not require a college degree. Of this number, 34.4% will be in medical services and the professions; 23.8% in retail trade, and 16.9% in manufacturing (on the surface, a high increase due to the effects of the two previous recessions). If the recent past is an accurate predicter, most of these new jobs will be created by fast-growing small and medium size companies. As reported in Business Week (May 27, 1985) companies with one to 99 employees employ 52.7% of new job holders, companies with 100 to 999 employees employ 29% of new job holders and companies with 1000 or more employees employ 18.3% of new employees.

The following three tables list those occupations with the largest job growth, fastest job growth, and greatest decline as predicted by the BLS for the years 1982 through 1995:

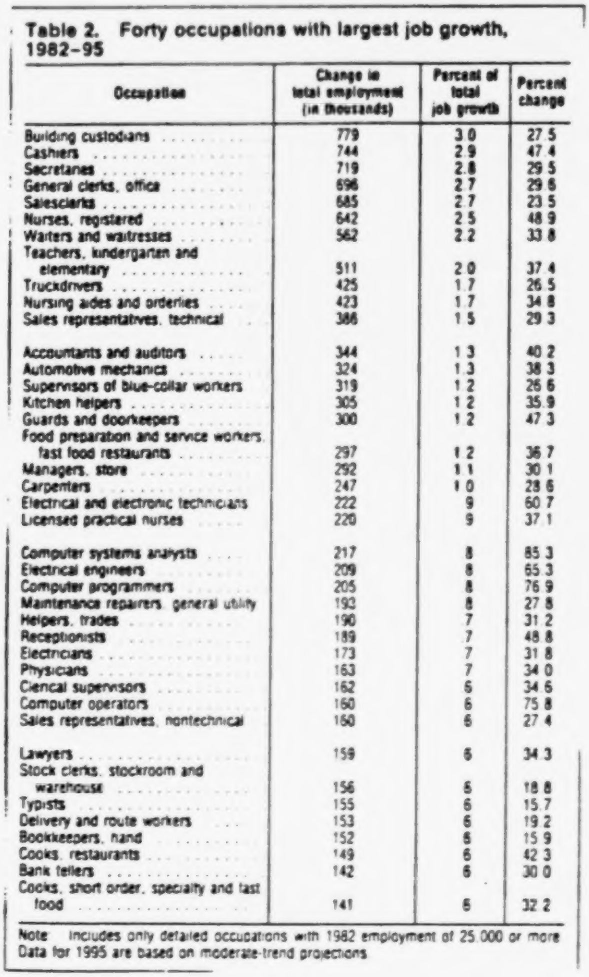

Table 2. Forty occupations with largest job growth, 1982–95

Occupation	Change in total employment (in thousands)	Percent of total job growth	Percent change
Building custodians	779	3.0	27.5
Cashiers	744	2.9	47.4
Secretaries	719	2.8	29.5
General clerks, office	696	2.7	29.6
Salesclerks	685	2.7	23.5
Nurses, registered	642	2.5	48.9
Waiters and waitresses	562	2.2	33.8
Teachers, kindergarten and elementary	511	2.0	37.4
Truckdrivers	425	1.7	26.5
Nursing aides and orderlies	423	1.7	34.8
Sales representatives, technical	386	1.5	29.3
Accountants and auditors	344	1.3	40.2
Automotive mechanics	324	1.3	38.3
Supervisors of blue-collar workers	319	1.2	26.6
Kitchen helpers	305	1.2	35.9
Guards and doorkeepers	300	1.2	47.3
Food preparation and service workers, fast food restaurants	297	1.2	36.7
Managers, store	292	1.1	30.1
Carpenters	247	1.0	28.6
Electrical and electronic technicians	222	.9	60.7
Licensed practical nurses	220	.9	37.1
Computer systems analysts	217	.8	85.3
Electrical engineers	209	.8	65.3
Computer programmers	205	.8	76.9
Maintenance repairers, general utility	193	.8	27.8
Helpers, trades	190	.7	31.2
Receptionists	189	.7	48.8
Electricians	173	.7	31.8
Physicians	163	.7	34.0
Clerical supervisors	162	.6	34.6
Computer operators	160	.6	75.8
Sales representatives, nontechnical	160	.6	27.4
Lawyers	159	.6	34.3
Stock clerks, stockroom and warehouse	156	.6	18.8
Typists	155	.6	15.7
Delivery and route workers	153	.6	19.2
Bookkeepers, hand	152	.6	15.9
Cooks, restaurants	149	.6	42.3
Bank tellers	142	.6	30.0
Cooks, short order, specialty and fast food	141	.6	32.2

Note: Includes only detailed occupations with 1982 employment of 25,000 or more. Data for 1995 are based on moderate-trend projections.

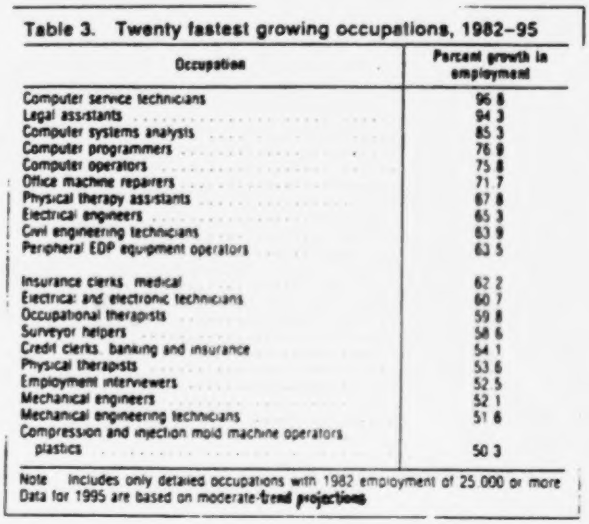

Table 3. Twenty fastest growing occupations, 1982–95

Occupation	Percent growth in employment
Computer service technicians	96.8
Legal assistants	94.3
Computer systems analysis	85.3
Computer programmers	76.9
Computer operators	75.8
Office machine repairers	71.7
Physical therapy assistants	67.8
Electrical engineers	65.3
Civil engineering technicians	63.9
Peripheral EDP equipment operators	63.5
Insurance clerks, medical	62.2
Electrical and electronic technicians	60.7
Occupational therapists	59.8
Surveyor helpers	58.6
Credit clerks, banking and insurance	54.1
Physical therapists	53.6
Employment interviewers	52.5
Mechanical engineers	52.1
Mechanical engineering technicians	51.8
Compression and injection mold machine operators, plastics	50.3

Note: Includes only detailed occupations with 1982 employment of 25,000 or more. Data for 1995 are based on moderate-trend projections.

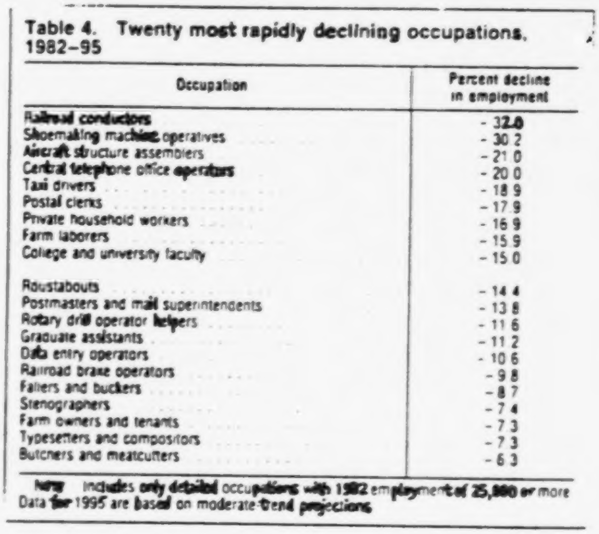

Table 4. Twenty most rapidly declining occupations, 1982–95

Occupation	Percent decline in employment
Railroad conductors	-32.0
Shoemaking machine operatives	-30.2
Aircraft structure assemblers	-21.0
Central telephone office operators	-20.0
Taxi drivers	-18.9
Postal clerks	-17.9
Private household workers	-16.9
Farm laborers	-15.9
College and university faculty	-15.0
Roustabouts	-14.4
Postmasters and mail superintendents	-13.8
Rotary drill operator helpers	-11.6
Graduate assistants	-11.2
Data entry operators	-10.6
Railroad brake operators	-9.8
Fallers and buckers	-8.7
Stenographers	-7.4
Farm owners and tenants	-7.3
Typesetters and compositors	-7.3
Butchers and meatcutters	-6.3

Note: Includes only detailed occupations with 1982 employment of 25,000 or more. Data for 1995 are based on moderate-trend projections.

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Many of these projections seem to support the interpretations of two Stanford economists that high tech will not necessarily require high skills. Levin and Rumberger in a recent paper note that although the economy is likely to create 150,000 new jobs for computer programmers in the next decade or so, "in the same period, some 1.3 million new jobs will be created for janitors, nurses' aides, and orderlies; nine unskilled jobs in these categories alone for every computer programmer." The authors believe that, for the vast majority of the labor force, the new technology is likely to further simplify and routinize work tasks. Further support comes from the BLS which projected an increase of only 1% (from 13-14%) in the high tech labor force. Although it is expanding faster in percentage terms, high tech jobs will account for a small proportion (only one out of seven new jobs) in the economy through 1995. Numerically, new jobs will be in the retail and wholesale trades, business services, new construction, eating and drinking establishments, and hospitals - not high technology.

Anthony Carnevale, of the American Society for Training and Development (ASTD), stated that even if robots increase from the present figure of 9000 to 100,000 and displace 300,000 people, this only effects 3/10 of 1% of the labor force. Overall, studies suggest that technology will create more jobs than it destroys. Displacement that occurs as a result of technology is highly concentrated in specific industries; it is not a nationwide problem. People are losing jobs because the economy has gone sour, not because machines are taking over. Carnevale believes that changes in the labor force are the result of larger forces - inflation, interest rates, budget deficits, etc. These factors determine employment much more significantly than the traditional villians - machines and foreigners. Further support for this view comes from a report on vocational preparation for high-tech occupations published by Stanford University. In it the author maintains that vocational schools are looking to high-tech training as the panacea for reducing unemployment. Job loss has been due more to the substitution of capital for labor and the export of jobs to other countries, trends that vocational programs are powerless to change.

The American economic system is very flexible and the economy creates an enormous number of jobs - 13 million new jobs (a 19% increase) in the last decade - and those which disappear are concentrated in a few areas. When employers need a worker, they reach for the person with the closest applicable skills available and re-train the person in the technical skills needed. But it must be emphasized that, as the BLS maintained (Occupational Outlook Quarterly, Spring 1985) "Employers can train workers for technical jobs, but only if they have a strong basic education." This adaptability and growth suggests that the U.S. labor force in the next decade will look similiar to the present. Changes will be incremental - evolutionary - not revolutionary. Adjustments will be made by both employers and employees.

A number of additional predictions regarding short-term national occupational growth and labor force projections have been made. Ward Morehouse, president of the Council on International and Public Affairs, a New York based research institute that looks at changing patterns of work, believes there is a long-term trend in the United States to overstate employment and understate unemployment.

John C. Crystal, a noted career change consultant, predicts that in the year 2000, craftspeople such as stonemasons, restoration carpenters, handmade-book binders, ceramic artists and specialized and organic farmers will be sought after. Any program or service connected with the elderly will also be strong, because of the growth of this age cohort. Also growing as a job field will be any role connected with the health and fitness trend.

John Naisbett believes that professional nannies, like those in Britain, will become another option in child care in the U.S. With the explosion of women in the labor force, affluence, and increased numbers of children under five the need for full-time nannies will increase. This job requires an education in such fields as nutrition, child development, psychology and health and safety. The demand for nannies is great with estimates of 150 jobs per qualifed nanny.

Business Week (April 29, 1985) reports another future job trend, remanufacturing. The fast-rising cost of products ranging from autos to robots is creating a ready market for similarly produced goods. Companies are now taking equipment destined for the junk heap (such as cars, telephones and engines) and making it usable again.

As many know a shortage of teachers has begun. According to the American Council on Education (HENA,May 20, 1985) by 1987 educators expect a shortage of 53,000 new teacher graduates. The greatest demand for new teachers will be at the elementary level and by 1990 the need is expected to increase by 38% Current teacher shortages have been identified in chemistry, computer programming, data processing, mathematics and physics.

Job loses have been predicted in computer programming (largely due to packaged software) and clerical workers because of the use of more sophisticated technology).

It is important to emphasize that with all the talk of a high-tech world, colleges and universities can easily forget or ignore the short-term needs of individuals. The fact is that it does not help to train someone now for a job that may be available in 2000 or 2010. Richard Bolles, a well-known expert on occupations has concern for what he called "sloppy talk" about the future. He said that "sloppy talk" about the future can paralyze people with a fear of it. Sloppy talk about the future stresses the new jobs but forgets to point out that we still need people to fix cars, grow crops, and build a serviceable bed. Sloppy talk about the future tells people that we will all be working with exotic machines and manipulating some mysterious commodity called "information," but it neglects to say that essential basic skills such as being able to communicate and to deal with people will still be needed.

Erik Payne Butler in "Higher Education's Role in Revitalizing America's Work Force," summarized this point of view:

"Despite the current flood of articles on hi tech's impact on the labor market, it is a mistake to expect that all new jobs will be in high technology. In fact, although technological change will dramatically affect employment, most of the new jobs will not be in high technology. Rather, the changing nature of work in many fields will increase the skill requirements for many jobs now regarded as nontechnological. It is probable that high technology will employ between five percent and ten percent of the entire work force in the foreseeable future, but that increase is not of such a size that education and training institutions should retool their curricula and training plans in order to respond. There is an estimated need in the eighties for 228,000 computer systems analysts, but those numbers pale in comparison with the many jobs that will require no more than a high school diploma - over 1,000,000 nurses aides, 140,000 dental assistants, 95,000 welfare service aides, 52,000 dry wall applicators, and 82,000 psychiatric aides. Moreover, over 1,000,000 new secretaries will be required along with 1.1 million new nurses and over 2,000,000 service workers of various descriptions. Most of these jobs are not in high technology, but they will require some technological training. Most industrial analysts project a growing shortage of skilled workers to fill the millions of new jobs. They may be part of an overall job shortage in the future. The Bureau of Labor Statistics estimates that between 1980 and 1990 the 12.5-15-million person increase in the size of the labor force will be exceeded by the 17-20-

million new jobs projected."

Women may have comparatively less trouble than men in finding jobs in the "new economy" because they have traditionally specialized in such service fields as nursing and secretarial work. However, since service jobs tend to be low paying, women earn only 65% of what men do.

Long-Term National Occupational Growth and Labor Force Projections

When one looks at the long term future an array of jobs from new and emerging fields can be identified. According to Cetron and O'Toole changes in technology will diminish the demand for secretaries in the office of the future, and computerized teleconferencing will reduce business travel by 25% in the next 20 years. Cable television will become so widespread that retail sales clerks will be reduced by 25% by the year 2000, as computers will do the selling. By 2000, as many as 1,000,000 robots will be working in American factories. Their use will result in the loss of 4.4 million workers. However, the introduction of robots will create thousands of new jobs for people to develop, produce, and test the smart robots. There will be a need for robot supervisors, robot maintenance men, and robot technicians. Careers with a future, according to Cetron and O'Toole, include robot technicians, robot engineers, computer programmers, laser technicians, energy engineers and technicians, solar technicians, hazardous waste technicians, genetic engineering technicians, paramedics, housing rehabilitation technicians, materials utilization technicians, holographic inspection specialists, battery technicians, geriatric social workers, restaurant chefs, hotel managers, public relations and advertising specialists, rental assistants, pharmacists, dieticians, and LPN's for the elderly.4 Older trades with bright futures include crane and bulldozer operators, auto mechanics, heating, cooling and refrigeration mechanics, and appliance service people.

Paul Larkin in "Real-World Jobs in the 1990's" lists clusters likely to spearhead economic activity in the private sector in the next few years. He lists communications, international trade, defense subcontracting, conferencing, travel and tourism, business services, energy, public transportation, maintenance and repair, trade associations, and genetic and biochemical technology. In all these clusters there is the need for more professional, technical, managerial, clerical and service workers and less need for untrained and unskilled workers.

Thus we are in the midst of substantial changes in the labor force and the economy. The data suggest strong demands for skilled people to fill growing numbers of jobs in the service economy and the high-tech economy. There is support for continued growth in both spheres.

Although there is some support for the view that the introduction of sophisticated technology and electronic mail will result in job losses among clerical workers, it is not yet fully clear what technological advances will do to service jobs in areas such as insurance, finance, retailing, secretarial work and the helping professions and it is not clear if, and how, workers will respond to technological intrusion into service occupations. Technological resistance and adaptations may confound any current predictions. It is also possible that many service sector occupations are likely to exist in years to come although workers in them may need to be proficient in computer skills which apply to their tasks. Carnevale maintains that technology's real impact will be on the skills of the people who have jobs. Thus, as Kutscher of the BLS maintains, technology will change how one does the job but not the function. Thus, a salesworker will be trained to use a computer-assisted terminal to log a sale, rather than an old "cash register," but selling will still be the primary function. On the other hand, hardware and software is becoming so "user friendly" that skill upgrading can be accomplished easily by advanced technology without great concern for the workers' technical skill abilities and aptitudes.

As strong as occupational growth and labor force projections appear to be they are not certain. Occupational and employment forecasts are inexact and subject to at least two problems:

(1) Many forecasts are notoriously inaccurate -- todays scarcity is tomorrow's glut and vice-versa.

(2) No matter how overcrowded a field is said to be, there are always some openings.

Research suggests that on the average, individuals make seven to eight career changes in their lifetime. Most individuals are unlikely to remain in the same job they obtain immediately after receiving their degree. As the BLS indicated, one out of five people in the labor force are not in the same job as they were one year ago. Occupational changes are, therefore, common and frequent.

A number of educators have published articles which extol the benefits of a general education as the principal means to prepare for change in general and occupational changes in particular.5 Michael S. McPherson, in "A Change for the Better?"

Change, (April, 84) asks:

> "What will it take, then, to get a good job in a computerized industry-the kind of job for which college education might be reasonable preparation? It seems very doubtful that, except for a handful of computer experts, mastery of the latest computer technology will be needed. Instead, humans will need to be good at those things computers are not well equipped to do. Those things include-for the present anyway-thinking flexibly and creatively, adapting to changing situations and novel challenges, and reflecting on the non-quantitative implications of quantitative data. Traditionally, these are the aptitudes a liberal arts education is supposed to strengthen. So, it is here asserted that, for those who seek good jobs in a technological society, a liberal arts education is a good bet."

Speaking before the Greater Baltimore Committee recently John Naisbitt, author of Megatrends, offered some trends. One important trend is the movement away from specialists in favor of generalists, as change becomes even more rapid. Naisbitt's advice to young people is to learn how to learn. Similarly, the federal government's Office of Technology Assessment issued a report in May, 1984, which maintained that "the challenges for educators and trainers will be to design and deliver instruction that develops skills with which individuals can better deal with the unknown, with future changes in skill requirements." This means that along with technical engineering and mechanical skills, workers must receive an "education for life."

Carnevale in "Higher Education's Role in the American Economy," maintains that:

> "Most important, postsecondary systems need to supply the advances in social sciences, the promotion of the arts and liberal education, and the hi-tech touch/human potential infrastructure that will make the wrenching changes in the general society that make high technology and its general penetration into the society at large understandable, manageable, and least disruptive. In a sense, postsecondary institutions should provide the general society and culture with as much protection from the negative effects of the advance of technology as encouragement for its acceleration."

To summarize, a comprehensive general education helps to provide students with frameworks to understand the world and flexibility to respond to situations as they unfold. As quoted in the San Francisco Chronicle (July 23, 1985) Neal Rosenthal, chief of the Division of Occupational Outlook for the BLS maintains that "the best thing to do is to get as much education and as broad an education as you can."

The Work Ethic in the 1980's

There is great concern in many quarters over the apparent decline in the traditional work ethic. Some evidence for this concern comes from the survey research of Daniel Yankelovich. He maintains that in the 1970's the aspirations for self-fulfillment of millions of Americans split away from the traditional symbols of success. Continuing in the 1980's these Americans demand full enjoyment and full employment and believe that self-fulfillment, unlike success, is to be found within the self. These new breed values are expressed in the world of work in three areas the increasing importance of leisure over work and family, the symbolic significance of a paid job for women, and the insistence that jobs become less depersonalized.

Yankelovich's findings are suspect and have been criticized. In fact, an opposing and equally strong view is that most Americans still adhere to the traditional work ethic. In support of this are results of a national survey of 7,281 adults reported in Psychology Today (February, 1984). When asked, "Imagine that you came into enough money to let you live as comfortable as you wanted for the rest of your life. Would you continue to work?" Three quarters (74%) of the men and 64% of the women replied yes.

Similar results have been reported in a recent multiyear study of the workplace by The Public Agenda Foundation in New York City. Nearly 90% of a group polled in 1980 subscribed to the idea that it was personally important to them to work hard and do their best on the job. In the study's own survey, more than half (52%) agreed with the statement: "I have an inner need to do the very best job possible, regardless of pay."

In "Employee Training: Current Trends, Future Challenges," Elizabeth Gorovitz uses information from a survey conducted by the Bureau of the Census - and used in a new book on employee training - to warn that the glut of middle-aged workers, underpaid females and new values among workers could lead to trouble in the work place. The number of 35-44 year olds - the prime age for middle managers-will increase by 42% from 1980 to

1990 creating a "promotional squeeze" and potential motivation and organization loyalty problems. Women will comprise 70-75% of all new workers over the decade. They are underpaid and losing ground to men. The notion of "comparable worth" may become a fiery issue, and women may begin to demand certain services from employers to meet their needs, such as child care and flexible work schedules. Affirmative action requirements and EEOC pressures for advancement may also trigger tension and conflict. A number of observers suggest that not only will there be a scarcity of good jobs, but females and other minorities will fight for their share.

What can safely be said is that people want jobs and the work ethic is not dead - but neither is it monolithic. People expect to work but want "good jobs" and increasingly reject "bad jobs." "Good jobs" include not only acceptable fringes and pay but participation in decision-making beyond collective bargaining. A more educated, mobile, and female labor force wants interesting jobs and control over jobs.

The "psychology of entitlement" continues to be a factor as many workers expect more and settle for less. Whether the entitlement notion is modified in face of present and future realities is unknown. Some observers believe that many Americans are beginning to lower their expectations about their future life chances and styles.

We can expect increaseds demand for the individualization of the work environment, more flexible work schedules to match individual needs, four-day work weeks, job-sharing, flex-time and flex-place, and, above all, the democratization of work organizations in the 80's. The labor force will be highly mobile and flexible. One expert expects a dwindling of private-sector unionism and the growth of unionism among governmental employees.

The work ethic is not uniform. Some members of the work force are relatively turned off by work, some are increasingly dissatisfied with work, and yet others find work increasingly important. In short, the supporters of the new breed view and the traditional view are both partly right and partly wrong. It depends on which worker one is talking about.

The Regional, State, and Local Economy

As most experts acknowledge, the nation faces a continuing shift of employment, income, and population away from the older industrialized North and Midwest to the newer less industrialized regions of the South and West. Jackson and Masnick in their recent article "Take Another Look at Regional U.S. Growth" in the Harvard Business Review have pointed out that data from the 1980 census suggest a new-found divergence in regional growth rates. In their analysis, Maryland is part of the South Atlantic region. This region has a limited supply of larger homes, rising house prices, and sharply reduced fertility. These factors lead them to predict slower growth than other areas of the nation particularly the East South Central, West South Central, and Mountain States.

Worth considering are the findings of the recent Maryland Index report. This report is designed to forecast the direction of the state's economy based upon ten leading economic indicators. It predicts downturns about five to eight months ahead of time and improvements about four or five months beforehand. However, it is sometimes a better indicator of current conditions than a forecasting device. The Index indicators, reported in The Sunday Sun(August 11, 1985) was up only slightly in June.

According to The Baltimore Sun (July 31, 1985) the recent decision by General Motors to locate the Saturn auto complex in central Tennessee reflects the movement away from northern and eastern areas by manufacturing industries. Critical factors in the decision were the shift in the U.S. population toward the South, the reduced costs of shipping finished cars from the complex and the shipping of parts to it and Tennessee's practice of paying teachers according to their performance.

Yet another report is more optimistic and reflects the predictions of John N. Snell, chief economist of the Regional Planning Council. As reported in The Evening Sun (May 17, 1984) more that one third of adults in Baltimore will be employed in the service industry by 1988. Firms providing business services such as computer and data processing, janitorial and protection services, and personnel supply will show the largest gains. Professional service jobs in the legal, architectural and accounting field will also increase. In his economic forecast for the Baltimore region through 1988, Snell said he anticipated "moderately good economic growth" marred only by an unemployment rate of 7%. About 68,000 new jobs, mostly in the services area, will be created and employment in the construction industries will probably peak in 1985. Federal government employment should return to 1980 levels by the end of 1988, after a decline from

1980 and 1983. Some of the indicators are continuing to show strength in the face of a slowing economy, especially an increase in average weekly manufacturing hours.

The National Planning Association predicts The Daily Record, (March 18, 1985) that half of all the jobs created by the U.S. economy by the year 2000 will be located in just 30 metropolitan areas - all but five of them in the sun belt. Baltimore is predicted to produce 220,500 new jobs by the year 2000 which corresponds to a 1.03% annual growth rate.

The State of Maryland, Department of Employment and Training, has published projections of Maryland and local area labor market analyses through 1990. Job growth and decline in Maryland, Baltimore Metro, Baltimore County and Carroll County can be found on the following pages.

MARYLAND -*1990*

LABOR MARKET ANALYSIS

OVERVIEW

Maryland's nonagricultural employment totaled 1,626,221 in 1982. By 1990, another 210,245 jobs will be added, bringing the total to 1,836,466. This increase will represent a growth rate of 12.9%. In addition to new jobs, many employment opportunities will be created as people leave the labor force. This replacement need will require over 50,000 workers per year. Thus, together, growth and replacement needs will provide more than 610,000 employment opportunities to Marylanders between 1982 and 1990.

INDUSTRIAL OUTLOOK SUMMARY—1990

The state's manufacturing payrolls will decline moderately, by 1,866 jobs, over the forecast period. With this decline, manufacturing's share of total employment will fall from 13.3% in 1982 to 11.7% in 1990. All other industry groups will increase their employment levels, with growth rates ranging from 7.2% to 46.2%.

Industry	Net Jobs	Growth Rate
Manufacturing	−1,866	− 0.9%
Mining	575	46.2%
Construction	16,292	18.9%
Transportation	8,518	9.3%
Wholesale Trade	13,246	14.9%
Retail Trade	60,088	19.3%
Finance	15,386	16.7%
Services	82,148	15.9%
Government	15,858	7.2%

Services and retail trade, which collectively employ over 50% of the state's work force, will account for more than two-thirds of the total employment growth over the projection period. Job increases will be lowest in the mining and transportation sectors.

JOB OUTLOOK SUMMARY—1990

All major occupational groups will increase their employment levels through 1990. However, the number of jobs available in several specific occupations, particularly those associated with the manufacturing industry, is expected to decline.

Occupational Group	New Positions	Growth Rate
Managers/Officers	22,204	15.5%
Professionals	23,556	8.6%
Technical	11,710	17.8%
Service	50,818	19.1%
Production/Maintenance	32,702	7.8%
Clerical	49,618	14.4%
Sales	19,637	17.1%

Nearly 50% of all new jobs will be for clerical and service workers. Opportunities for the technical work force, although expanding at a rate of 17.8%, will be the fewest.

DEPARTMENT OF EMPLOYMENT AND TRAINING

STATE OF MARYLAND
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Production/maintenance employment will expand by 32,702 jobs between 1982 and 1990. Growth expected in this occupational category will occur primarily in the construction and transportation industries. Demand will be strong for supervisors in craft and related occupations, carpenters, maintenance repairers (general utility), electricians, truck drivers, production packagers, trades helpers, stock clerks, order fillers, and gardeners/groundskeepers.

Service occupations will expand rapidly through 1990. With almost 51,000 new jobs and a growth rate of 19.1%, employment opportunities will be most plentiful for janitors/porters/cleaners, guards, cooks and food preparation workers in fast food restaurants, waiters/waitresses, and nurse aides/orderlies. The majority of new jobs for this worker group will be found in the services and retail trade industries.

Clerical employment will expand at a rate of 14.4% through 1990. In absolute terms, this translates into an increase of 49,618 new jobs. While clerical workers will be employed in all industry sectors, their representation will be highest in finance, retail trade, services, and government. Opportunities will be plentiful for secretaries, cashiers, typists, tellers, and general office clerks.

Professional personnel will represent 16.3% of the work force in 1990. Increased demand, particularly in the services and finance industries, will generate 23,556 new jobs for this worker group. The outlook will be bright for accountants/auditors, systems analysts, lawyers, caseworkers, nurses, and elementary and secondary school teachers. However, job openings for teachers, with the exception of those in math/science specialties, will result mainly from replacement needs.

Managers/officers will account for 9% of the work force in 1990. A moderately strong growth rate of 15.5% will generate 22,204 new managerial positions by the end of the decade. The employment outlook will be favorable for managers in retail stores and restaurants and for administrators (including public inspectors). The services, retail trade, and finance industries will provide the largest numbers of new jobs.

Sales workers, the bulk of whom are employed in the retail trade sector, will find nearly 20,000 new jobs by 1990. Demand will be highest for sales clerks, however, the number of opportunities available for sales representatives and for securities and insurance sales agents also will increase noticeably.

Technical employment will increase by 17.8%, or 11,710 jobs, through 1990. Services, the primary employer of the technical work force, will provide most new opportunities. Job prospects will be favorable for electrical/electronic and engineering technicians, licensed practical nurses, computer programmers, medical lab technologists/assistants, and dental assistants.

Specific occupations with large numbers of jobs in 1990 include:

• Janitors/Porters/Cleaners	62,050
• Sales Clerk	61,430
• Secretary	56,740
• General Office Clerk	49,750
• Fast Food Service Worker	38,430
• Nurse, Professional	28,890
• Cashier	28,390
• Waiter/Waitress	26,240
• Truck Driver	25,070
• Teacher, Secondary School	24,370
• Typist	24,170

Specific occupations with large projected employment growth include:

	Growth	Replacement	Total
• Janitors/Porters/Cleaners	9,550	20,527	30,077
• Sales Clerk	9,090	18,067	27,157
• Fast Food Service Worker	7,780	8,759	16,539
• Secretary	7,050	15,581	22,631
• General Office Clerk	5,590	12,734	18,324
• Nurse, Professional	5,440	7,097	12,537
• Waiter/Waitress	4,950	6,008	10,958
• Cashier	4,560	6,768	11,328
• Nurse Aide/Orderly	4,410	5,207	9,617
• Retail Store Manager	3,580	5,884	9,464

Selected occupations that are likely to show little or no growth by 1990 include:

- Sewing Machine Operator, Nongarment
- Industrial Engineer
- Traffic Technician
- Machine Assembler
- Punch Press Operator, Plastics
- Molder, Machine
- Die Cutter/Clicking Machine Operator
- Grinding/Abrading Machine Operator
- Fusing Machine Operator

Some occupations that are expected to lose positions by 1990 include:

• Assembler	−330
• Professor	−260
• Bus Driver, School	−210
• Industrial Truck Operator	−170
• Welder/Flamecutter	−160
• Tool and Die Maker	−130
• Maintenance Mechanic	−110

MARYLAND
Distribution of Employment
1982–1990

Industry Group	1982 Employment Number	1982 Employment % Dist.	Avg. Wkly. Wage	1990 Employment Number	1990 Employment % Dist.
Government	219,971	13.5	$347.00	235,829	12.8
Mining	1,245	0.1	$410.00	1,820	0.1
Construction	86,124	5.3	$344.00	102,416	5.6
Manufacturing	215,828	13.3	$394.00	213,962	11.7
Transportation, Communication & Utilities (excl. Railroads)	91,974	5.7	$413.00	100,492	5.5
Wholesale Trade	88,784	5.5	$396.00	102,030	5.6
Retail Trade	312,113	19.2	$188.00	372,201	20.3
Finance, Insurance & Real Estate	92,010	5.7	$315.00	107,396	5.8
Services	518,172	31.9	$286.00	600,320	32.7
Total Private Sector	1,406,250	86.5	$302.00	1,600,637	87.2
TOTAL	1,626,221	100.0	$313.00	1,836,466	100.0

ENTRY LEVEL WAGE RATES FISCAL YEAR 1983

Occupation	Average Hourly Wage
Administrative Clerk	$4.84
Assembler, Production	7.25
Bricklayer	8.83
Carpenter	6.44
Construction Worker	4.51
Electrician	8.34
Electronics, Assembler	4.24
Maintenance Repairer, Building	4.32
Sales Agent, Insurance	5.63
Secretary	5.38
Tractor Trailer Truck Driver	7.19
Truck Driver, Heavy	5.25

Note: Based on job openings with DET.

CIVILIAN LABOR FORCE AND UNEMPLOYMENT

	Maryland
Civilian Labor Force	
1982 Annual Average	2,164,000
1983 Annual Average	2,211,000
Unemployment	
1982 Annual Average	183,000
1983 Annual Average	153,000
Unemployment Rate	
1982 Annual Average	8.5
1983 Annual Average	6.9

SELECTED EMPLOYERS

Employer	Product/Service
Automation Industries Inc.	Engineering and architectural services
Baltimore Gas & Electric Company	Electric and other services
Bendix Field Engineering	Communication services
Bethlehem Steel Corp.	Blast furnaces and steel mills
Chesapeake & Potomac Telephone Co.	Telephone communications
IBM Corp.	Computer programming and software
Johns Hopkins Hospital	General medical and surgical services
Johns Hopkins University and Applied Physics Lab.	Higher education institution and research/develop.
Marriott Corp.	Eating and drinking places
Maryland Cup Corp.	Sanitary food containers
Westinghouse Electric Corp.	Radio and TV communication equipment

POPULATION

	Maryland
1950	2,343,001
1960	3,100,689
1970	3,923,897
1980	4,216,975
1985 (Proj.)	4,350,104
1990 (Proj.)	4,535,456

AGE GROUP DISTRIBUTION
(Maryland)

Age	1982	%	1990	%
Under 5				
Male	143,415	3.3	158,635	3.5
Female	136,812	3.2	151,509	3.3
Total	280,227	6.5	310,144	6.8
5–19				
Male	520,611	12.2	457,259	10.1
Female	501,655	11.7	436,719	9.6
Total	1,022,266	23.9	893,978	19.7
20–44				
Male	833,228	19.4	945,120	20.9
Female	866,093	20.2	958,662	21.1
Total	1,699,321	39.6	1,903,782	42.0
45–64				
Male	414,095	9.7	436,075	9.6
Female	449,239	10.5	475,165	10.5
Total	863,334	20.2	911,240	20.1
65 & Over				
Male	163,828	3.8	195,734	4.3
Female	256,452	6.0	320,578	7.1
Total	420,280	9.8	516,312	11.4
TOTAL	4,285,428	100.0	4,535,456	100.0

U.S. Bureau of Census
Maryland Department of State Planning
Maryland Department of Employment and Training

EDUCATION

There are three types of higher education institutions in Maryland. Included are trade and technical schools (about 200), two-year colleges (20), four-year colleges and universities (34). Additionally, there are five nursing schools affiliated with hospitals.

Trade and technical schools offer programs intended to provide skills related to particular types of jobs. Programs are usually shorter at trade and technical schools than at collegiate institutions. Two-year colleges offer certificates and/or associate degrees, while four-year colleges and universities offer bachelor degrees. Many of the four-year institutions conduct master and doctorate programs. A few of these schools offer professional degrees. There are approximately 300 secondary schools in Maryland. About 250 of these offer vocational education programs. Additional educational detail is presented in the individual county reports.

BALTIMORE METRO SDA -*1990*

LABOR MARKET ANALYSIS

OVERVIEW

The Baltimore Metro Service Delivery Area's (SDA's) nonagricultural payrolls are expected to provide 690,669 jobs by 1990, an increase of 79,437 jobs, or 13.0%, from 1982. The SDA's employment growth rate will be slightly higher than that expected statewide. Expansion rates in the jurisdictions comprising the SDA will range from a low of 11.9% to a high of 18.5%.

- Baltimore Metro SDA .... 13.0% Employment Growth
- Maryland .... 12.9% Employment Growth
- Baltimore City .... 12.5% Employment Growth
- Anne Arundel County .... 11.9% Employment Growth
- Carroll County .... 18.5% Employment Growth
- Howard County .... 17.0% Employment Growth

In addition to those opportunities expected to arise due to employment growth, labor demand will increase substantially as employers recruit in order to satisfy replacement needs. The 157,627 openings that are likely to result from labor force separations will exceed growth opportunities by a ratio of almost 2 to 1.

INDUSTRIAL OUTLOOK SUMMARY—1990

Substantial cutbacks are expected in the SDA's manufacturing sector through 1990. These losses will be readily apparent on the city's manufacturing payrolls. All other industrial groups will increase their employment levels.

Industry	Net Jobs	Growth Rate
Manufacturing	−10,311	−11.3%
Construction	4,675	18.6%
Transportation	621	1.2%
Wholesale Trade	3,513	9.1%
Retail Trade	27,836	27.6%
Finance	7,828	17.3%
Services	43,339	23.8%
Government	1,936	2.5%

The rates of employment growth in retail trade and services, the SDA's two largest employers, are expected to be significantly higher than those expected statewide. Increased hiring activity in these two sectors will more than compensate for manufacturing losses.

JOB OUTLOOK SUMMARY—1990

Employment is expected to increase in all major worker groups. The fewest number of new positions will surface in the production/maintenance classification. This sluggish demand picture can, in large part, be attributed to the expected decline in the SDA's manufacturing sector.

Occupational Group	New Positions	Growth Rate
Managers/Officers	8,572	16.3%
Professionals	9,798	9.8%
Technical	4,821	20.1%
Service	29,329	28.7%
Production/Maintenance	1,455	0.9%
Clerical	19,410	14.5%
Sales	6,052	14.8%

The increase in service employment, both in terms of numerical increase and percentage rise, will surpass that expected in any other occupational group.

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OCCUPATIONAL PLACEMENT

Production/maintenance jobs will provide employment for over 23% of the SDA's work force. Some job losses in this occupational group will occur in the manufacturing industry. The largest declines are expected among production packagers, industrial truck operators, and assemblers. These declines will be offset somewhat by increased opportunities for heavy equipment operators, delivery/route workers, and electrical/electronic assemblers.

Service employment will increase rapidly through 1990, at a rate well above that anticipated statewide. A substantial number of new opportunities will arise in the retail trade and services industries. Those occupations ranking high on the demand list will include janitor/porter/cleaner, guard/doorkeeper, nurse aide/orderly, and varied food service worker categories.

Clerical employment will expand at an annual rate of approximately 1.8% through 1990. The need for additional workers will be expressed throughout the SDA. Virtually all industries will add clerical positions; however, the potential for hire will be greatest in the services sector. By 1990, a number of "new" clerical classifications will evolve in the SDA such as actuarial clerk, dividend clerk, and media clerk/estimator.

Professional workers will comprise 15.8% of the SDA's work force in 1990. Demand for these workers will be highest in Baltimore City and Anne Arundel County. Job opportunities will be most plentiful in services. Although declining in overall employment, the manufacturing industry will add some 700 professional positions as manufacturing in the region evolves from labor-intensive smokestack industries to light manufacturing and/or adopts advances in automation. The big gainers will include electrical/electronic engineers, lawyers, nurses, and accountants/auditors.

Managerial employment in the SDA will increase at a rate greater than that expected statewide. Additional openings for managers will be most prevalent in the services and retail trade industries. Job prospects will be most plentiful for retail store managers, followed closely by managerial positions in eating/drinking establishments.

Sales employment will increase by 14.8%, or 6,052 jobs, over the forecast period. The majority of new positions will be created in the trade sector. More than 2,100 new openings will arise for sales clerks. Increased demand for securities sales agents will create an additional 630 positions in this job classification.

Technical workers will find increased opportunities throughout the SDA; however, demand will be highest in Baltimore City. The services industry, which employs a substantial portion of the technical work force, will supply the largest number of new openings. Those occupations displaying significant growth potential include licensed practical nurse, electrical/electronic technician, computer programmer, and drafter.

JOB OPPORTUNITIES

Specific occupations with large numbers of jobs in 1990 include:

• Janitors/Porters/Cleaners	25,850
• Secretary	22,090
• Sales Clerk	18,760
• General Office Clerk	18,750
• Fast Food Service Worker	18,100
• Nurse, Professional	13,920
• Waiter/Waitress	10,440
• Cashier	9,960
• Nurse Aide/Orderly	9,780
• Typist	9,220
• Truck Driver	8,960

Specific occupations with large projected employment growth include:

	Growth	Replacement	Total
• Fast Food Service Worker	6,030	3,826	9,856
• Janitors/Porters/Cleaners	5,800	8,225	14,025
• Secretary	3,480	5,944	9,424
• Waiter/Waitress	3,160	2,240	5,400
• Nurse, Professional	3,110	3,353	6,463
• General Office Clerk	2,260	4,765	7,025
• Sales Clerk	2,160	5,615	7,775
• Nurse Aide/Orderly	2,120	2,093	4,213
• Guards/Doorkeepers	1,690	2,770	4,460
• Cashier	1,640	2,369	4,009

Selected occupations that are likely to show little or no growth by 1990 include:

- Cost Estimator, Engineering
- Claims Examiner—Life/Accident/Health Insurance
- Construction Inspector
- Court Clerk
- School Crossing Guard
- Sewage Plant Operator
- Dispatcher, Police/Fire/Ambulance
- Press Assistants and Feeders
- Fire Fighting and Prevention Supervisor

Some occupations that are expected to lose positions by 1990 include:

• Teacher, Secondary School	−1,420
• Teacher, Elementary/Preschool	−1,140
• Production Packager	−650
• Industrial Truck Operator	−460
• Teacher, Post Secondary	−350
• Assembler	−350
• Welder/Flamecutter	−290

Baltimore Metro SDA
Distribution of Employment
1982–1990

Industry Group	1982 Employment Number	1982 Employment % Dist.	Avg. Wkly. Wage	1990 Employment Number	1990 Employment % Dist.
Government	78,208	12.8	$308.00	80,144	11.6
Construction	25,076	4.1	$349.00	29,751	4.3
Manufacturing	91,129	14.9	$412.00	80,818	11.7
Transportation, Communication & Utilities (excl. Railroads)	49,996	8.2	$445.00	50,617	7.3
Wholesale Trade	38,520	6.3	$396.00	42,033	6.1
Retail Trade	101,029	16.5	$178.00	128,865	18.7
Finance, Insurance & Real Estate	45,173	7.4	$331.00	53,001	7.7
Services	182,101	29.8	$276.00	225,440	32.6
Total Private Sector	533,024	87.2	$315.00	610,525	88.4
TOTAL	611,232	100.0	$313.00	690,669	100.0

ENTRY LEVEL WAGE RATES FISCAL YEAR 1983

Occupation	Average Hourly Wage
Administrative Clerk	$4.26
Assembler, Production	8.21
Bricklayer	8.96
Carpenter	6.86
Construction Worker	4.57
Electrician	6.86
Electronics Assembler	4.79
Maintenance Repairer, Building	4.67
Sales Agent, Insurance	5.35
Secretary	5.06
Tractor Trailer Truck Driver	7.16
Truck Driver, Heavy	4.98

Note: Based on job openings with DET.

CIVILIAN LABOR FORCE AND UNEMPLOYMENT

	Baltimore Metro SDA	Maryland
Civilian Labor Force		
1982 Annual Average	678,206	2,164,000
1983 Annual Average	684,812	2,211,000
Unemployment		
1982 Annual Average	66,658	183,000
1983 Annual Average	53,978	153,000
Unemployment Rate		
1982 Annual Avergae	9.8	8.5
1983 Annual Average	7.9	6.9

SELECTED EMPLOYERS

Employer	Product/Service
A.S. Abell Publishing Company	Newspaper publishing
Bendix Field Engineering Corp.	Communication services
Black & Decker US, Inc.	Power tools
Congoleum Corporation	Floor coverings
Johns Hopkins University & Applied Physics Lab	Higher education, institution and research/develop.
Koppers Co., Inc.	Power transmissions, carburetors, pistons, rings
Manpower, Inc.	Temporary help supply services
Random House, Inc.	Book distribution
Rouse Company	Real estate and commercial development
U.S.F. & G. Company	Insurance underwriters
W.R. Grace & Co.	Industrial inorganic chemicals
Westinghouse Electric Corp.	Radio/TV communication and industrial equipment

POPULATION

	Baltimore Metro SDA	Maryland
1950	1,135,126	2,343,001
1960	1,234,595	3,100,689
1970	1,335,229	3,923,897
1980	1,372,478	4,216,975
1985 (Proj.)	1,400,000	4,350,104
1990 (Proj.)	1,446,000	4,535,456

AGE GROUP DISTRIBUTION
(Baltimore Metropolitan SDA)

Age	1982	%	1990	%
Under 5				
Male	48,408	3.5	52,975	3.7
Female	46,107	3.3	50,737	3.5
Total	94,515	6.8	103,712	7.2
5–19				
Male	170,211	12.3	151,532	10.5
Female	164,077	11.8	144,972	10.0
Total	334,288	24.1	296,504	20.5
20–44				
Male	266,942	19.2	302,663	20.9
Female	276,782	19.9	308,676	21.4
Total	543,724	39.1	611,339	42.3
45–64				
Male	128,888	9.3	129,881	9.0
Female	143,357	10.3	144,090	9.9
Total	272,245	19.6	273,971	18.9
65 & Over				
Male	55,317	4.0	58,547	4.0
Female	89,563	6.4	101,927	7.1
Total	144,880	10.4	160,474	11.1
TOTAL	1,389,652	100.0	1,446,000	100.0

U.S. Bureau of Census
Maryland Department of State Planning
Maryland Department of Employment and Training

EDUCATION

Public Secondary Schools (1983)

Number: 43 Senior High
1 Junior/Senior High
58 Junior High/Middle
30 Combined/Other
7 Vocational-Technical

Enrollment: 116,524

Vocational Education

Seven vocational-technical high schools or centers are located throughout the SDA, with a combined enrollment of more than 7,800 students. The schools offer approximately 50 distinct programs that encompass both traditional occupations (auto mechanics, carpentry, welding) and emerging vocations (data processing, allied health, electrical equipment maintenance). Nearly all high schools in the region offer some vocational-technical instruction and a number of the schools have extensive votech programs. Approximately 24,000 high school students are enrolled in occupational educational programs in the comprehensive public schools.

Independent Post Secondary Schools

There are 78 state approved proprietary schools in the SDA which collectively offer a broad spectrum of training for technical and trade occupations. Specialized training is available in the allied health professions, fine and applied arts, aviation, cosmetology and barbering, computer and word processing, science technology, real estate, business and secretarial skills, culinary arts, and polygraph examination.

Higher Education

The region is served by approximately 40 institutions of higher education including two-year community colleges with their contributions toward meeting the vocational-technical and continuing education needs of the community; public and private liberal arts colleges with their emphases on broad-based education to complement occupation-specific training; and comprehensive public and private universities which offer education and training opportunities through graduate and professional levels.

BALTIMORE COUNTY-*1990*

LABOR MARKET ANALYSIS

OVERVIEW

Total nonagricultural wage and salary employment in Baltimore County is expected to expand by 21,126 new positions—increasing from 261,197 in 1982 to 282,323 in 1990—a growth of 8.1%. This rate of growth will be substantially lower than the statewide norm and those of surrounding jurisdictions.

Baltimore County	8.1% Employment Growth
Maryland	12.9% Employment Growth
Anne Arundel County	11.9% Employment Growth
Baltimore City	12.5% Employment Growth
Harford County	18.7% Employment Growth
Carroll County	18.5% Employment Growth
Howard County	14.7% Employment Growth

Additional employment opportunities will arise as a result of workers leaving the labor force through attrition. These separations will play a major role in providing **job openings in** the county. Openings due to labor force separations will add another 64,419 jobs to the forecast.

INDUSTRIAL OUTLOOK SUMMARY—1990

The manufacturing industrial group will **decline by 429** jobs through 1990. An employment loss of **2.7**%, or 890 jobs, also will occur in government.

Industry	Net Jobs	Growth Rate
Manufacturing	-429	-0.9%
Government	-890	-2.7%
Construction	3,488	23.9%
Transportation	2,291	24.4%
Wholesale Trade	3,399	22.1%
Retail Trade	7,694	14.5%
Finance	1,593	14.2%
Services	3,980	5.3%

The greatest number of new positions will be available in retail trade; the fewest will be found in the finance sector. Transportation employment will expand the most rapidly, growing by 24.4%.

JOB OUTLOOK SUMMARY—1990

Employment will increase in all major occupational groups through 1990. The largest number of new positions will be in production/maintenance occupations; the fewest will be in the professional group. Sales occupations will expand at the quickest pace.

Occupational Group	New Positions	Growth Rate
Managers/Officers	2,420	11.3%
Professionals	40	0.1%
Technical	1,286	12.5%
Service	4,327	10.5%
Production/Maintenance	5,008	6.7%
Clerical	4,807	9.3%
Sales	3,238	16.6%

Professional workers comprise 15.1% of total employment **in** the county. With very few new positions expected in this category, jobseekers will have to rely more heavily upon replacement openings as a source of employment.

DEPARTMENT OF EMPLOYMENT AND TRAINING

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1100 NORTH EUTAW STREET
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SECRETARY

OCCUPATIONAL PLACEMENT

Production/maintenance workers will make up approximately 28% of the total work force. The majority of jobs will be in the manufacturing and construction industries. Although total manufacturing will decline by 1990, jobs for electrical/electronic assemblers, drill press operators, electronic wirers, and bookbinders will be available.

Service employment will expand moderately through 1990, adding 4,327 new jobs. Retail trade and services will furnish opportunities for more than 50% of the service work force. Demand will be greatest for food service workers (cooks, waitresses), medical assistants (nurse aides, psychiatric aides), and guards/doorkeepers.

Clerical occupations, which account for 20% of total employment, are expected to increase by 4,807 jobs through 1990. Approximately 45% of all clerical jobs will be in services and retail trade. Additional openings will be available for secretaries, typists, receptionists, cashiers, general office clerks, accounting clerks, stenographers, and bookkeepers. Library assistants and teacher aides will experience employment declines.

Professional occupations will increase by only 40 positions. This small increase can be attributed to a heavy decline in the number of professional educators employed in the county—by 1990, it is expected that there will be more than 2,500 fewer teaching positions. These losses will, however, be countered by gains among nurses, physicians, and lawyers.

Managerial employment will expand by approximately 11% through 1990. The largest employers of managers are services and retail trade. These two industries will furnish over 50% of all managerial openings. Retail store manager will be one of the fastest growing occupations in the county. Wholesale trade and eating/drinking establishments will offer additional management openings.

Sales will be the most rapidly expanding occupational group by 1990. Openings for sales workers will be found predominantly in retail trade. Jobs for sales clerks will increase by nearly 1,700. Significant growth also will occur among insurance sales agents.

Technical occupations, which make up 4.1% of the county's total employment, will expand by 12.5% through 1990. The services industry will be the prime source of new positions. Jobs for licensed practical nurses will rise by 290. Sizable increases in other health services positions also are expected.

JOB OPPORTUNITIES

Specific occupations with large numbers of jobs in 1990 include:

• Sales Clerk	10,860
• Secretary	7,810
• Janitors/Porters/Cleaners	7,780
• General Office Clerk	7,210
• Fast Food Service Worker	5,000
• Nurse, Professional	4,830
• Truck Driver	4,500
• Nurse Aide/Orderly	4,320
• Cashier	4,300

Specific occupations with large projected employment growth include:

	Growth	Replacement	Total
• Sales Clerk	1,670	3,184	4,854
• Nurse Aide/Orderly	930	925	1,855
• Nurse, Professional	890	1,189	2,079
• Cashier	660	1,037	1,697
• Fast Food Service Worker	570	1,196	1,766
• Truck Driver	510	621	1,131
• Secretary	500	2,184	2,684
• Waiter/Waitress	430	904	1,334
• Stock Clerk, Sales Floor	430	225	655
• General Office Clerk	420	1,881	2,301
• Retail Store Manager	410	887	1,297
• Delivery/Route Worker	330	372	702

Selected occupations that are likely to show little or no growth by 1990 include:

- Claims Adjuster
- Gardeners/Groundskeepers
- Chemist
- Mechanical Engineer
- Aeronautical Engineer
- Civil Engineering Technician
- Postal Service Clerk
- Painter, Automotive
- Machine Tool Operator, Numerical Control
- Recreation Facility Attendant

Some occupations that are expected to lose positions by 1990 include:

• Teacher, Secondary School	−915
• Teacher, Elementary/Preschool	−825
• Teacher, Post Secondary	−235
• Teacher Aide	−215
• Bus Driver, School	− 80
• Librarian	− 75
• Vocational/Educational Counselor	− 65

BALTIMORE COUNTY
Distribution of Employment
1982-1990

Industry Group	1982 Employment Number	1982 Employment % Dist.	Avg. Wkly. Wage	1990 Employment Number	1990 Employment % Dist.
Government	33,912	13.0	$353.00	33,022	11.7
Construction	14,618	5.6	$348.00	18,106	6.4
Manufacturing	48,142	18.4	$442.00	47,713	16.9
Transportation, Communication & Utilities (excl. Railroads)	9,401	3.6	$329.00	11,692	4.1
Wholesale Trade	15,406	5.9	$429.00	18,805	6.7
Retail Trade	53,026	20.3	$175.00	60,720	21.5
Finance, Insurance & Real Estate	11,199	4.3	$323.00	12,792	4.5
Services	75,493	28.9	$248.00	79,473	28.1
Total Private Sector	227,285	87.0	$303.00	249,301	88.3
TOTAL	261,197	100.0	$314.00	282,323	100.0

ENTRY LEVEL WAGE RATES FISCAL YEAR 1983

Occupation	Average Hourly Wage
Accountant	$7.03
Automobile Mechanic	5.95
Bricklayer	8.00
Carpenter	8.13
Computer Operator	5.17
Electrician	8.66
Electronics Technician	6.81
Maintenance Repairer, Building	3.99
Nurse Aide	3.80
Secretary	6.19
Systems Analyst, EDP	9.85
Tractor Trailer Truck Driver	7.21

Note: Based on job orders with DET.

CIVILIAN LABOR FORCE AND UNEMPLOYMENT

	Baltimore County	Maryland
Civilian Labor Force		
1982 Annual Average	325,156	2,164,000
1983 Annual Average	327,274	2,211,000
Unemployment		
1982 Annual Average	33,027	183,000
1983 Annual Average	25,933	153,000
Unemployment Rate		
1982 Annual Average	10.2	8.5
1983 Annual Average	7.9	6.9

SELECTED EMPLOYERS

Employer	Product/Service
AAI Corporation	Research and development
Bethlehem Steel Corporation	Blast furnace and steel mill
Blue Cross of Maryland, Inc.	Hospital and medical service plans
C&P Telephone Company	Telephone communication service
Flintkote Company	Ready-mixed concrete
Hutzler Brothers	Department store
Martin-Marietta Corporation	Aerospace contractors, research and development
Maryland Cup Corporation	Paper/plastic cups and containers
McCormick and Company, Inc.	Food preparation
Meridian Healthcare	Nursing care facility
St. Joseph Hospital	General medical and surgical services
Servomation Corporation	Merchandising machine operator

POPULATION

	Baltimore County	Maryland
1950	270,273	2,343,001
1960	492,428	3,100,689
1970	620,409	3,923,897
1980	655,615	4,216,975
1985 (Proj.)	670,002	4,350,104
1990 (Proj.)	684,998	4,535,456

AGE GROUP DISTRIBUTION (Baltimore County)

Age	1982	%	1990	%
Under 5				
Male	18,729	2.8	20,533	3.0
Female	17,818	2.7	19,318	2.8
Total	36,547	5.5	39,851	5.8
5–19				
Male	71,577	10.8	59,495	8.7
Female	69,650	10.5	57,278	8.4
Total	141,227	21.3	116,773	17.1
20–44				
Male	125,451	19.0	141,557	20.7
Female	132,117	20.0	143,544	20.9
Total	257,568	39.0	285,101	41.6
45–64				
Male	71,892	10.9	67,654	9.9
Female	78,883	11.9	76,199	11.1
Total	150,775	22.8	143,853	21.0
65 & Over				
Male	29,494	4.5	37,489	5.5
Female	45,880	6.9	61,931	9.0
Total	75,374	11.4	99,420	14.5
TOTAL	661,491	100.0	684,998	100.0

U.S. Bureau of Census
Maryland Department of State Planning
Maryland Department of Employment and Training

EDUCATION

Public Secondary Schools (1983)

Number: 17 Senior High
3 Combined
23 Junior High/Middle
4 Vocational-Technical Center

Enrollment: 44,255

Vocational Education

Each of the votech centers offers approximately 20 programs in a variety of trades ranging from cosmetology and cooking to plumbing and heavy equipment maintenance. All of the senior high schools in the county also offer vocational course work in areas such as auto mechanics, carpentry, drafting, and office skills.

Independent Post Secondary Schools

Nineteen independent trade and technical schools in the county offer training in a variety of vocations. Study is available in general allied health professions, secretarial skills, cosmetology, modeling, real estate, CPA review, bartending, and travel agent training.

Higher Education

Baltimore County is served by three public community colleges (Catonsville, Essex, and Dundalk), a four-year public college (Towson State University), a branch of the University of Maryland, and two four-year independent colleges (Goucher and Villa Julie). The colleges offer a full range of liberal arts, professional, technical, and vocational programs ranging from TV maintenance, retail floristry, and podiatric assistance to economics, speech pathology, and international relations.

CARROLL COUNTY -*1990*

LABOR MARKET ANALYSIS

OVERVIEW

Carroll County's total nonagricultural wage and salary employment is expected to expand by 4,323 new positions by 1990—increasing from 23,424 to 27,747—a growth rate of 18.5%. The county's rate of growth will be substantially higher than the statewide norm and well above the growth rates of other jurisdictions in the Baltimore Metro Service Delivery Area.

- Carroll County .... 18.5% Employment Growth
- Maryland.. 12.9% Employment Growth
- Anne Arundel County........................... 11.9% Employment Growth
- Baltimore City .... 12.5% Employment Growth

Additional employment opportunities will arise as a result of workers leaving the labor force through attrition. These separations will play a major role in providing job openings in the county. Demand resulting from labor force separations will add another 6,149 openings to the job forecast in 1990.

INDUSTRIAL OUTLOOK SUMMARY—1990

Total employment will increase in the manufacturing industrial group by 1990, with a gain of 1,880 jobs. The anticipated performance of the county's manufacturing industry will help to cushion the decline in manufacturing expected for the entire Baltimore Metro SDA.

Industry	Net Jobs	Growth Rate
Construction	442	24.9%
Manufacturing	1,880	31.9%
Transportation	195	19.3%
Wholesale Trade	437	24.7%
Retail Trade	751	19.4%
Finance	142	19.5%
Services	352	4.6%
Government	124	14.6%

The county's retail trade sector will provide the second largest source of new job opportunities. With the exception of services and government, industrial growth rates are expected to top 19.0%.

JOB OUTLOOK SUMMARY—1990

Total employment will increase in all major occupational groups; however, several specific occupations within the major groups will decline. The production/maintenance group will supply the greatest number of new jobs; professionals will find the fewest new positions.

Occupational Group	New Positions	Growth Rate
Managers/Officers	367	20.0%
Professionals	8	0.3%
Technical	124	14.4%
Service	377	10.9%
Production/Maintenance	2,314	27.3%
Clerical	788	19.0%
Sales	344	26.1%

Production/maintenance jobs will expand at the most rapid pace, with jobs for sales workers and managers also exhibiting healthy rates of expansion.

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OCCUPATIONAL PLACEMENT

Production/maintenance workers will comprise the largest occupational group in the county, accounting for 38.9% of the work force. Significant job opportunities will exist in manufacturing and construction, where skilled workers such as electrical/electronic assemblers, production packagers, sewing machine operators, maintenance repairers, carpenters, and trades' helpers will be in demand.

Service occupations will expand by 10.9% through 1990. Workers with service occupational skills, the bulk of whom will be employed in the services and retail trade industries, will find increased demand for janitors/porters/cleaners, food service workers (cooks, waiters/waitresses) and medical assistants (nurse aides/orderlies, psychiatric aides).

Clerical jobs, which will expand by 19%, will be more readily available in the retail trade and services industries. A rise in the number of opportunities for secretaries, general office clerks, typists, cashiers, tellers, accounting clerks, and bookkeepers is expected. Clerical positions requiring specialized skills—computer operator, statistical clerk, and stenographer—will be limited.

Professional occupations will expand by a mere 0.3%. This relatively flat rate of growth is attributable to a projected decline in the number of professional educators employed in the county. By 1990, it is expected that there will be 250 fewer teachers, from preschool through higher education, than in 1982. This decline will be offset, however, by an increase in demand for engineers (electrical/electronic and mechanical), systems analysts, buyers, accountants/auditors, nurses, physicians, and lawyers.

Managerial occupations, expanding at a rate of 20% through 1990, will account for approximately 8% of total employment. Managers will be employed primarily in the retail trade and services industries. Retail store manager will be one of the fastest growing occupations in the county.

Sales occupations will increase rapidly through 1990, with a projected growth rate of 26.1%. Approximately 6% of the work force will be employed in sales jobs by 1990. More than 300 new sales positions are projected, with retail trade offering the greatest number of new job opportunities.

Technical workers represent a relatively small group in the county's occupational mix. Increased demand in the services industry will signal a rise in the number of opportunities available for health technicians such as licensed practical nurses and dental assistants. In manufacturing, there will be additional openings for skilled electrical/electronic and mechanical engineering technicians. Computer programmers and drafters also will be in greater demand.

JOB OPPORTUNITIES

Specific occupations with large numbers of jobs in 1990 include:

• Sales Clerk	770
• Janitors/Porters/Cleaners	670
• Nurse, Professional	670
• Nurse Aide/Orderly	640
• Secretary	620
• Sewing Machine Operator, Garment	560
• General Office Clerk	500
• Truck Driver	470
• Teacher, Secondary School	400
• Teacher, Elementary/Preschool	390

Specific occupations with large projected employment growth include:

	Growth	Replacement	Total
• Sales Clerk	170	218	388
• Sewing Machine Operator, Garment	160	184	344
• Secretary	90	168	258
• Truck Driver	90	62	152
• Carpenter	90	75	165
• Production Packager	80	65	145
• Nurse, Professional	70	172	242
• Nurse Aide/Orderly	70	145	215
• General Office Clerk	70	126	196

Selected occupations that are likely to show little or no growth by 1990 include:

- Plumber/Pipefitter
- Sheet Metal Worker
- Dining Room/Cafeteria Attendant
- Stenographer
- Drill Press/Boring Machine Operator
- Medical Laboratory Technologist
- Civil Engineer
- Pharmacist
- Vocational/Educational Counselor
- Diesel Mechanic

Some occupations that are expected to lose positions by 1990:

• Teacher, Secondary School	−130
• Teacher, Elementary/Preschool	−110
• Teacher Aide	−30
• Cook, Institution/Cafeteria	−10
• Teacher, Post Secondary	−10
• Librarian	−10
• Teacher, Vocational Education	−10
• Speech Pathologist/Audiologist	−10
• School/School Bus Monitor	−10

CARROLL COUNTY
Distribution of Employment
1982–1990

Industry Group	1982 Employment Number	1982 Employment % Dist.	Avg. Wkly. Wage	1990 Employment Number	1990 Employment % Dist.
Government	728	3.1	$278.00	852	3.1
Construction	1,777	7.6	$263.00	2,219	8.0
Manufacturing	5,900	25.2	$335.00	7,780	28.0
Transportation, Communication & Utilities (excl. Railroads)	987	4.2	$294.00	1,182	4.3
Wholesale Trade	1,772	7.6	$269.00	2,209	8.0
Retail Trade	3,866	16.5	$182.00	4,617	16.6
Finance, Insurance & Real Estate	727	3.1	$230.00	869	3.1
Services	7,667	32.7	$199.00	8,019	28.9
Total Private Sector	22,696	96.9	$256.00	26,895	96.9
TOTAL	23,424	100.0	$260.00	27,747	100.0

ENTRY LEVEL WAGE RATES FISCAL YEAR 1983

Occupation	Average Hourly Wage
Administrative Clerk	$4.00
Automobile Mechanic	5.31
Bricklayer	9.00
Carpenter	6.58
Construction Worker	4.11
Dental Assistant	4.00
Electrician	6.57
Electronics Assembler	3.35
Maintenance Repairer, Building	4.02
Nurses Aide	3.41
Secretary	4.11
Tractor Trailer Truck Driver	8.86

CIVILIAN LABOR FORCE AND UNEMPLOYMENT

	Carroll County	Baltimore Metro SDA
Civilian Labor Force		
1982 Annual Average	47,586	678,206
1983 Annual Average	47,479	684,812
Unemployment		
1982 Annual Average	4,651	66,656
1983 Annual Average	3,190	53,978
Unemployment Rate		
1982 Annual Average	9.8	9.8
1983 Annual Average	6.7	7.9

SELECTED EMPLOYERS

Employer	Product/Service
Black and Decker US, Inc.	Power tools
Borenstein & Sons, Inc.	Men's, youth's & boy's garments
Cambridge Rubber Co.	Rubber footwear
Carroll County General	General medical/surgical services
Congoleum Corporation	Floor coverings
Edison International, Inc.	Pumps and pumping equipment
G. M. Gaither Market, Inc.	Food service
Gould, Inc.	Industrial controls
Lehigh Port Cement Co.	Cement
Random House, Inc.	Book distribution
Western Maryland College, Inc.	Higher education institution
Westinghouse Electric Corp.	Industrial equipment

POPULATION

	Carroll County	Baltimore Metro SDA	Maryland
1950	44,907	1,135,126	2,343,001
1960	52,785	1,234,595	3,100,689
1970	69,006	1,335,229	3,923,897
1980	96,356	1,372,478	4,216,975
1985 (Proj.) ..	107,001	1,400,000	4,350,104
1990 (Proj.) ..	115,000	1,446,000	4,535,456

AGE GROUP DISTRIBUTION (Carroll County)

Age	1982	%	1990	%
Under 5				
Male	3,450	3.5	4,090	3.6
Female	3,304	3.3	3,898	3.4
Total	6,754	6.8	7,988	7.0
5–19				
Male	12,715	12.7	12,235	10.6
Female	12,416	12.4	11,830	10.3
Total	25,131	25.1	24,065	20.9
20–44				
Male	19,842	19.8	23,725	20.6
Female	20,028	20.0	23,962	20.8
Total	39,870	39.8	47,687	41.4
45–64				
Male	9,413	9.4	12,096	10.5
Female	9,447	9.4	11,795	10.3
Total	18,860	18.8	23,891	20.8
65 & Over				
Male	3,830	3.8	4,563	4.0
Female	5,639	5.7	6,806	5.9
Total	9,469	9.5	11,369	9.9
TOTAL	100,084	100.0	115,000	100.0

U.S. Bureau of Census
Maryland Department of State Planning
Maryland Department of Employment and Training

EDUCATION

Public Secondary Schools (1983)

Number: 5 Senior High
7 Middle
1 Vocational-Technical Center

Enrollment: 11,360

Vocational Education

The vocational-technical center in Westminster has more than 500 students enrolled in nearly 20 study programs including practical nursing, auto body repair, material handling, cosmetology, and plumbing. South Carroll High School in Sykesville also offers a wide range of votech instructional programs in areas such as auto mechanics, drafting, electronics, machine shop, and masonry. The other county high schools provide instruction in stenography, office clerical skills, and retailing.

Independent Post Secondary Schools

Study in practical nursing is available in Sykesville; training in cosmetology is available in Westminster. County residents also are within commuting distance of a wide variety of technical and trade schools in adjacent Frederick, Baltimore, and Howard Counties.

Higher Education

Western Maryland College is an independent four-year liberal arts college located in Westminster. The college offers undergraduate programs in more than 20 academic disciplines. Catonsville Community College offers instruction in a variety of business and vocational programs at a branch campus in the county.

In most respects the current state and local economy mirrors the national picture. The shift from blue collar to white collar employment across the country includes the local economy. For example, the 1980 census reported that in the metropolitan area, 29.2% workers were blue collar whereas 56.4% were white collar.

Maryland's unemployment rate has declined to a current rate of 4.4% in May, 1985 - the state's lowest rate for any May in twelve years, and below national unemployment rates. The gains in employment were the result of an improving national economy and seasonal hiring. Black unemployment was estimated at 9.3% and the Baltimore metropolitan area rate was 5.3%.

Yet long-term unemployment problems of discouraged and dislocated workers in Maryland remain. According to The Sun state officials estimate that there are about 35,000 displaced and 23,000 discouraged workers in the state. Many steel and auto workers, longshoremen, truck drivers, retail clerks, teachers, meatcutters, and factory workers remain unemployed as well in the state. Recent articles in The Sun (December 28, 1984 and June 27, 1985) have documented the continued lower demand for nurses in the state. The rate of unfilled nursing jobs in Maryland hospitals dropped from 13.8% in 1980 to 6.1% in 1985 with a similar drop recorded in the Baltimore area. Industry officials say Maryland hospitals are under great pressure to provide more highly skilled care and hold down costs at the same time. They believe this can better be met through a combination of RN's and nurses' aides. The days of LPN's in hospitals may be ending.

The brightest prospects for LPN's are expected to be in health maintenance organizations, nursing homes, walk-in clinics and home health care services.

Of special significance is the increasing need for teachers in the Baltimore area and the state. As detailed in The Sunday Sun (May 20, 1984) by the end of the 1980's, experts and statistics suggest a severe teacher shortage. According to the National Center for Education Statistics, U.S. school systems will need to hire about 160,000 teachers in 1990, but only 109,000 graduates will seek a job in the profession.6 A decade of continued enrollment drops in Maryland is about to end and the turnaround at the elementary level may start as early as 1985, while it will begin in junior and senior high schools in the early 1990's. A recent state task force concluded that "the State will encounter severe shortages of teachers in science and mathematics, moderate shortages in English and mild shortages in home economics and social studies." It predicted a surplus of teachers in art, health, and physical education and music, a "considerable oversupply" in elementary education and a "modest shortage" in special education. Urban school districts will probably bear the brunt of the shortage, while the wealthier jurisdictions will fare well.

As reported, for the first time in more than a decade enrollments in teacher-education programs are growing. In an informal poll of higher education institutions in 15 states, deans and directors of education attributed the enrollment increases in part to a growing awareness of teacher shortages in some fields and geographic areas.

The Owings Mills area of the county will be the location of a future town center and more than $200 million worth of commercial and residential development. The Rouse Company is building a high fashion regional shopping center which will open August 14, 1986. Coupled with the opening of the Northwest Expressway the Owings Mills area will be in the midst of a significant expansion of office parks and residential building. Additional housing, offices and hotels will be built by Rouse through the year 2003. (A report with additional information on the College's presence in the area is expected to be available in late August from Dr. Mammarella)

Related to the changes in Owings Mills, Pikesville has been designated a town center and plans are underway to upgrade Pikesville through building a retail-office center and high-rise housing along with the revitalization of existing businesses and the infrastructure.

Corollaries

1. The development of the information economy will require more education and continuing education at higher levels:

- programs geared to mid-level professional upgrading should be explored in the larger community.
- linkages to the business/industrial complex should be encouraged as sophisticated technology and changing occupational patterns will lead to more complexity, increased interdependence, and a growing need for postsecondary education.
- Basic computer literacy skills for all students

- Continued emphasis on excellence in education
- Short-term training and retraining programs for discouraged and dislocated workers to permit immediate job entry
- New locations, times, open-entry, open-exit curriculum formats, etc.
- Continued strong support of a sound general education program
- A major campaign to market the benefits of a general education as part of occupational and career needs to new and returning students, faculty and staff, and the larger community
- Revise and strengthen teacher education programs and options
- Attract current teachers in need of recertification or certification in new subject areas
- More marketing of these and new programs to the community
- Assess the College's Nursing Program and consider options to train LPN's for practice in health maintenance organizations, nursing homes, walk-in clinics and home health care services.
- Assess need for new degree/certificate programs in growing occupations such as paralegal personnel, nurses' aides, salesworkers and representatives, store managers, travel and tourism workers, restaurant/food/hospitality workers, child care workers, etc., in addition to the computer related occupations.

- Identify existing courses and new courses as well as faculty capability to contribute to new growth areas.

2. The College will likely find more and more workers adhering to various work ethics. It will have to make appropriate adjustments. For those lacking a commitment to the traditional ethic, yet desirous of immediate employment, the College may provide appropriate counseling and instruction. For those adhering to the new breed values, it may mean a recognition and respect for a new value orientation. For those committed to the traditional ethic, it may mean reinforcement. For those unclear, it may mean effective counseling and instruction. In short, diverse work ethics may require diverse institutional responses.

- Increase "life-long" learning opportunities.
- Provide an expanded program for "leisure time" activities.
- Explore the expanded offering of cultural activities as a community service.
- Continue career development program with major emphasis on transferable skills and on career planning skills.

The National Economy and Higher Education

David Breneman, in his article "Higher Education and the Economy," offers a pessimistic view of the future of community colleges in the years ahead. In support of his views he offers the following: (1) an erosion of full-time transfer oriented enrollments; (2) a failure of adult, part-time enrollments to continue growing; (3) an inability to establish community services on other than a pay-as-you-go basis; (4) an absence of political clout in state legislatures when competition for state resources grows intense; (5) public suspicion about some courses and a loss in public support; (6) growing resistance of taxpayers to finance adult remedial education; (7) an inability to broaden coverage of federal student aid to "lifelong learning." He believes that in the 1980's, higher education must walk the fine line between responsible innovation and expedient hucksterism.

Future funding problems for higher education are predicted by Steven Gold, Director of the National Conference of State Legislatures' intergovernmental finance project. In Higher Education Daily (Nov 4, 1983) he said that state funding for higher education generally will dwindle in the next several years because of continuing constraints on state revenues, decreased college enrollments and increased competition for state dollars from elementary and secondary schools.

This pessimistic forecast is challenged by the views of John J. Connolly in an article on "Community Colleges in the 1980's." Whatever problems confront the community colleges may be offset by their strengths: (1) a vocational orientation; (2) mature part-time students rather than younger and recent high school graduates; (3) easier transfer to four year institutions; (4) modern physical plants and improved self-image; (5) aggressive community services and outreach programs which put community colleges in the center of the community; (6) low cost and accessibility; and (7) successful efforts to serve business and industry which impress business and political leaders.

Connolly does make reference to two problems confronting community colleges. First is FTE funding formulas which are insensitive to incremental costs for serving three or four part-time students to achieve 1 FTE; and, if FTE decreases, loss of state aid. Second is that if student aid money is diminished, low income students enrolled in low-cost institutions could be hurt the most. Since minority students are a new market in the 80's, this loss of aid could prove a problem. On the other hand as higher education costs go up, and federal aid is less, more middle-income students may be attracted to the community colleges.

In 1980, an AACJC panel tried to project the environment for community colleges. The environment was characterized by: (1) austerity in the public sector; (2) unprecedented change; (3) more inter-cultural connections and perspectives; (4) increased emphasis on lifelong education; (5) increased emphasis on local industry-educational cooperation; (6) increased competition among providers of educational services; (7) changing clientele; (8) growing government influence; (9) lack of a clear community college self-image; (10) institutional maturation; (11) responsiveness to social needs; (12) an information revolution; (13) increased centralization; (14) energy issues; (15) changing values; (16) receptiveness to quality of life concerns; and (17) getting qualified instructors in popular occupational programs.

Connolly identifies four areas which will present the major challenges to community colleges in the 1980's:

1. Staff renewal - the challenge is to address "burn out" so institutions can attract and retain dedicated staff excited about their professional roles and committed to their colleges. The burn out problem is associated with media attacks,

news of college closings, financial woes, poor students, the decline of liberal arts, loss of professional mobility, and diminished chances for promotion and rewards for excellent performance. A recent report on the problem by the Association for the Study of Higher Education suggests that solutions to the problems involve colleges setting up new reward systems, career development programs, and involving faculty in planning and in governance of institutions.

2. Competition - Community colleges will compete with four-year institutions for part-time adult students. The author believes the strengths of community colleges will allow them to overcome the enrollment challenges raised by four year colleges. With regard to competition, Peter Drucker maintains that colleges will have to go where the market is -- continuing professional education of already well educated people. He maintains that adult education in the arts and sciences and humanities must be integrated into professional development for people to come back to class. Attractive courses are those which will maintain or improve one's professional calling. Unlike Connelly, Amitai Etzioni notes that society is political and many decisions are not based on pure merit. The larger colleges and universities have more clout than community colleges and, to the degree that this influence continues, they will retain an inappropriately large share of funds allocated to higher education.

3. Curricular Balance and Quality - Many faculty and administrators are concerned that 52% of all full-time students are in occupational programs, thus supporting a view that many

community colleges are becoming technical schools. The dilution of a strong liberal arts curricula threatens the community college objective of a "balanced" program. Connolly asks: if general education courses only serve the needs of occupational students, are they a valid equivalent of the first two years of an undergraduate liberal arts education? In response he notes that because community college transfers are now widely accepted, this crisis is also an opportunity to create a two-year general education component designed to meet the learning needs of students rather than those of four-year institutions.

Unstated, but perhaps implied, is that institutions should demand only first-rate work in education and services, programs and personnel, operational efficiency, academic freedom, and intellectual climate. They must have high standards for student performance and graduation. According to Thomas M. Stauffer in "Higher Education to the year 2000," college programs must reflect the future and the place of students in that future. Of high priority are citizenship preparation, proficiency in communications, lifework education, science and technology literacy, and computer skills.

4. Supporting the Community College Mission

This constitutes the most serious challenge and revolves around whether or not the public is willing to pay the costs necessary for community colleges to fulfill their mission. The lack of support will not only threaten quality but access for all.

Corollaries

1. Continue to look for better alternatives to FTE formula

funding.

- Continue emphasis on honors program.
- Strengthen attempts to meet diversity without compromising standards.
- Expand ability to provide remedial basic skills instruction. (According to Johns Hopkins, there are more than 200,000 illiterate adults in Baltimore.)
- Emphasis on methods of learning and identification of transferable skills.

2. Expansion of marketing/outreach efforts to determine:

- What should be done to increase acceptance in current markets?
- What new populations exist?
- What changes in course offerings will increase acceptance?
- What new programs or services could be developed?
- What existing programs should be phased out?
- What programs should be supplemented to appeal to different groups?
- What limitations or advantages competing colleges have for attracting students.
- Increase curriculum and course development efforts.

3. Develop accountability and evaluation standards that insure cost-effectiveness and productivity in:

- program evaluation
- course evaluation
- faculty and staff evaluation
- management evaluation

- space utilization
- energy conservation

4. Avoid costly duplication of services where feasible in:
    - word processing
    - information processing
    - Xerox
    - printed materials/publications
5. Develop a planning process linking human and program resource development to budget development
6. Expand networking of services (i.e. small business institute, consortia, etc.)
7. Contract out consulting services (i.e. computer, personnel, student personnel services, etc)

The Social-Political Climate of the 1980's and 1990's

The William Moss Institute of the American University researched people's attitudes about the future in May and June, 1983. Their results suggest that: (1) While Americans are generally optimistic about their personal futures, they are less optimistic about the collective future, that is, the future of "people in general;" (2) As income and education increase, so do both personal and collective optimism- thus white-collar workers and sales workers are consistently optimistic about the future while household workers are consistently pessimistic; (3) men are more optimistic than women and respondents without children were more personally optimistic than respondents with children; (4) as the educational level of women increased, they become more pessimistic than men with the same level of education.

According to this research the information that Americans want most regarding the future deals with the economy. They want information about the stock market, social security, and "how to make a lot of money quick." The second most frequently requested information concerns future employment. Americans want to know about making career choices, jobs for the future, and whether jobs in specific fields will be available.

One of the most promising approaches to evaluate the likelihood of various scenarious for the future has been taken by researchers at Stanford. Based upon research, they have developed a typology which analyzes and integrates the values and lives of Americans. The result is a description of nine adult lifestyle groups and how they may change in response to future economic, social and political conditions:

Survivor	Sustainer	Belonger	Emulator
Old; intensely poor; fearful; depressed; despairing; far removed from the cultural mainstream; misfits; MISTRUSTFUL AND CONSERVATIVE 6 MILLION	Living on the edge of poverty; angry and resentful; streetwise; involved in the underground economy; FEEL LEFT OUT OF THINGS; ANXIOUS TO GET AHEAD. 11 MILLION	Aging; traditional and conventional; contented; intensely patriotic; sentimental; deeply stable; FAMILY ORIENTED AND CONFORMING. 60 MILLION	Youthful and ambitious; macho; show-off; trying break into the system, t make it big; HARD WORKING AND FAIRLY SUCCESSFUL 13 MILLION

Achiever	I-Am-Me	Experiential	Societally Conscious	Integrated
Middle-aged and prosperous; able leaders; self-assured; materialistic; builders of the "American dream." HARD-WORKING; SELF-RELIANT; STAUNCHLY CONSERVATIVE 35 MILLION	Transition state; exhibitionistic and narcissistic; young; impulsive; dramatic; experimental; active; inventive; YOUNGEST OF ALL GROUPS 6 MILLION	Youthful; seek direct experience; person-centered; artistic; intensely oriented toward inner growth. DEEP INVOLVEMENT IN IDEAS, ISSUES; WELL EDUCATED AND HOLD GOOD JOBS; POLITICALLY LIBERAL; 11 MILLION	Mission-oriented; leaders of single-issue groups; mature; successful; some live lives of voluntary simplicity. DIVERSE GROUP 15 MILLION	Psychologically mature; large field of vision; tolerant and understanding; sense of fittingness. ARE OPEN, SELF-ASSURED AND POSSESS A GLOBAL PERSPECTIVE 3 MILLION

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How these life style groups may fare under four plausible scenarios in the future is described below:

A "Renaissance" future - this reflects a revitalization of the economy and an extension of the broad economic, demographic, and social trends of the 1960's and 1970's. Under this scenario the role of Belongers diminishes as they fall behind the mainstream culture; Emulators thrive; new conservative leadership concentrates among the Achievers in economic, cultural and spiritual matters that touch people's daily lives. The development of an inner-directed group (Experiential) results in their pursuit of their own interest and convictions and by 1990, under the influence of the Integrated, leadership based upon a synthesis of experiential and integrated perspectives is viewed as the way society in the U.S. must go.

A "bouncy prosperity" future- under this high growth scenario the main trend is a reversal of the flow from outer direction to inner direction. Bouncy prosperity is emphatically an Achievers world and Emulators increase in numbers and Belongers hold steady. The I am - Mes come close to disappearing because of popular sentiment against narcissitic life-styles and the Experientials expand.

A "hard-times" future- under this future there are repeated recessions and high inflation and unemployment. Government intervention in the economy leads to the expansion of "big government" Attempts to revitalize the economy have failed and traditional past-oriented conservatism is in full swing. The nation is in a defensive posture and a Sustainer/Belonger style covers the whole of society. Almost everyone is fearful and insecure and gives increased attention to job securty and risk avoidance. The changes in types occur in the huge increase in the number of need drivens (Sustainers and Belongers), the huge decrease in the number of inner-directeds, and the elimination of Emulators and I-am-Mes as groups. Many Sustainers and Belongers and some Emulators take on survival characteristics in a future of hard times and this group experiences the biggest increase.

A "transformation" future - this scenario postulates a major trend toward managerial decentralization of governmental and other organizational activities accompanied by a massive shift in values toward inner direction and voluntary simplicity. In this scenario violent ideological wars occur between the outer - and inner - directed factions. By 1990 the inner-directed have jumped to a third of the population and outnumber Achievers by 2 to 1. I-am-me types don't thrive and the number of Experientials grows. The Societally Conscious group more than doubles and the philosophies of this group dominates. The number of Belongers holds steady but Emulators and Achievers suffer large losses.

Two well known and respected futurists, Marvin Cetron and Thomas O'Toole predict substantial social and political changes in the United States by 2000. In their book Encounters with the Future they contend that for most of the 20th century, social change has come first to Sweden before coming to America. They maintain that in the next ten years Sweden will pass on to us things like paternity leave for new fathers, government-paid catastrophic medical insurance, and free university education on a scholarship performance basis. Sweden's welfare system will be adopted here, which is welfare only for the disabled and the handicapped. Free universal day care for children will require that every able-bodied person work.

The authors believe there will be fewer people living in poverty, once welfare practices are reformed and new social reforms are made. There will be shorter workweeks, 32 hours a week by 1990 and 25 hours a week by 2000. Flex-time and job sharing will be the rule and unions will become less important to blue-collar workers and more important to white-collar workers.

According to Business Week (July 8, 1985) organized labor's share of the work force is down to 19% and if this decline persists, by the year 2000 unions will represent only 13% of all nonfarm workers. Labor's political and bargaining muscle will continue to atrophy. Fading union strength does not mean management can deal with workers as they please. The time is coming when nonunion employees will no longer serve entirely at the employer's will - the so called employment-at-will doctrine that has prevailed for decades. Increasing court action is putting pressure on state legislatures to pass legislation prohibiting firings except for "just cause." More states are expected to pass these laws and one expert predicts that by the mid 1990's there will be a federal unjust-dismissal law.

Some states have passed laws that supersede the federal law and do away with mandatory retirement altogether. Maryland has banned mandatory retirement at age 70 for private sector employees. According to The Chronicle of Higher Education (July 10, 1985) legislation has been introduced in Congress to do away with forced retirement at age 70. Higher education lobbyists urged Congress to exempt tenured college and university employees from the proposed prohibition for 15 years, to avoid faculty becoming static and remaining in service indefinitely. Although it is not expected to pass this year it is only a matter of time before Congress approves such a bill.

A group of experts discussing the graying of America noted that with the increase in longevity, should jobs be available, more people would willingly work into their 70's and 80's. As one expert has written The New York Times, (October 28, 1984). the fact that many of the old do not work at this time threatens to produce the nasty politics of youth against age. That old folks linger on interminably, and the young are compelled to pay rising Social Security taxes and rising taxes to finance medicare, may exacerbate generational conflict. Since seniors vote in great numbers their interests are likely to have an enormous impact on public expenditures in the years ahead.

Significant changes have been made to equal employment opportunity and notions of comparable worth under the Reagan administration. The cornerstone of the government's campaign against job bias is the Equal Employment Opportunity Commission (EEOC). According to Business Week (March 11, 1985) recent EEOC activity is based upon three unifying themes: (1) suspicion of discrimination charges based on statistics rather than on evidence of bias against identified workers; (2) belief that remedies for past bias should be tailered more narrowly; (3) definitions of affirmative action that emphasize recruiting techniques and training programs geared to minority workers rather than specific minority hiring goals.

Perhaps the Adminstration's stance towards this and related issues of equity for minority Americans reflects the sentiments of many white Americans, Richard Reeves, writing about the 1984 Presidential election in "America's Choice: What It Means,"(New York Times Magazine, November 4, 1984) stated that the majority commitment to programs seen to favor poor blacks - like affirmative action - had dissipated in national polls long before the 1980 election.

Comparable worth refers to the idea that salary should be based on the skill, effort and responsibility of a job regardless of whether the job is held by a man or a woman. Numerous studies have found that jobs held predominantly by women carry lower salaries than jobs held predomoinantly by men that require comparable talents, skill and responsibility. In June, 1985 the notion of comparable worth received a setback when the EEOC ruled unanimously that such equalization was not required by Federal law. The EEOC said that unequal pay for comparable jobs is not in and of itself proof of discrimination. In a related ruling reported in The Chronicle of Higher Education (November 21, 1984) the US Court of Appeals for the First Circuit ruled that a university may pay different salaries to faculty members whose positions and responsibilities are essentially the same when the difference results from the institution's response to "market forces." In Maryland a gubernatorial commission has been reviewing the overall personnel and pay structure of the state government, as well as the notion of comparable worth. The 1984

General Assembly passed a resolution that said a pay scale based on comparable worth was to be state policy.

According to Cetron and O'Toole, the U.S. will stay conservative until 1988, when Reagan must vacate his office. Gray power will emerge as a sophisticated political force and will be in support of the conservative movement. By 1988 the Democrats once more will control the power in the House and Senate and the country will elect a Democratic president. By 1988 the pendulum will begin to swing away from conservatism, as the elderly in particular will grow disillusioned with Republican policies.

Cetron and O'Toole also state that before 1990 arrives (and changes in housing construction lowers prices) housing will be so expensive that college-age children will choose to study near home so they can live at home and have their own cars.

The energy crisis will be of concern until 1995 when breeders start to generate large amounts of nuclear electricity and fusion power is demonstrated. There will be stepped-up migration to the Sun Belt and the nation's oldest cities will empty out. Suburbs and rural areas will continue to grow because most people will not return to the cities, except perhaps affluent middle-class families and individuals.

A rapid rise in the minority labor force will be a social development of the next 20 years. By 1990 the authors believe that minorities will be 30% of the new labor force, and more than 70% of the women between 25 and 44 will be working in 1990. By the year 2000, American women of childbearing years will average half the pregnancies today's women do. The baby boom is over and will stay that way as the ranks of young single people continue to rise and defer or refuse marriage. For those who choose marriage, they will limit the size of their families to one or two children.

Plan 2000, a study prepared by the Insurance Information Institute, predicts that married couples with no children will account for 29% of the population at the turn of the century, up from 28% in 1980 and singles will make up 47%, up from 43%.

As Victor Ferkiss concludes in "The Future of the U.S. Governement," political habits and institutions are remarkably tenacious and resilient. For this reason, the government and politics of the United States will probably not undergo a radical transformation in the foreseeable future. Yet some changes will occur, and according to Ferkiss they are the growing strength of the Republican Party the rise of political action committees and the increasing importance of the electronic media.

The Reagan Administration has asked Congress to approve a tax reform plan. Several elements of the plan could have damaging consequences for higher education. The first element would be the proposal to limit the deductibility of charitable gifts to non-profit organizations. According to one study Higher Education Daily, (December 13, 1984) charitable gifts to colleges and universities would decline by one-fourth if this feature were enacted. A second element is the proposal to eliminate current deductions for state and local taxes. Many educators are worried that if this deduction is eliminated, less tax money may eventually by available for public education because taxpayers will press state and local governments to reduce taxpayers' overall liabilities. As reported in The Sun (June 16, 1985) if this deduction were eliminated, Maryland officials believe that local governments will be hard pressed to maintain the same level of service without looking elsewhere - probably to the state - for funds. More than 40 organizations including AACJC have formed the Coalition Against Double Taxation and a growing list of Congressmen are backing Senate and House resolutions that would preserve the deduction for state and local taxes. Educators are pleased with the Administration's proposal to retain the tax-free status of tuition benefits that companies provide for their workers.

The most recent outlook for passage of the administration's tax reform plan suggests that it is less and less likely to pass the Congress . The New York Times (June 30, 1985) reported that the plan is in trouble over two issues. The first was the mounting evidence that the tax proposals would worsen the budget deficit. The second was the fear that the revisions might harm middle-income families, whose votes are the lifeblock of politicians. According to Business Week (July 29, 1985) constituents most common reaction to reform is boredom. In some cases lawmakers have encountered outright hostility, centering on a negative reaction to elimination of the deductibility of state and local taxes.

Congressional legislation under current consideration and of interest to higher education follows:

Status of Legislation

As of August 1, when Congress adjourned for a month. Bold type indicates changes	SENATE	HOUSE
ARTS AND HUMANITIES (S 1264, HR 2245). Senate bill would set spending ceilings at fiscal 1985 levels, allowing $164-million for the National Endowment for the Arts, $139-million for the National Endowment for the Humanities, and $22-million for the Institute for Museum Services for fiscal 1986. House measure would extend the programs for one year but would not set specific spending ceilings.	**Ordered reported July 31**	Reported May 15 H Rep 99-97
BUDGET RESOLUTION FOR FISCAL 1986 (S CON RES 32). Compromise version would trim $800-million from the Guaranteed Student Loan program over three years, including a $100-million reduction in fiscal 1986. Other student-aid programs and programs helping disadvantaged students would grow with inflation, while most other college-assistance programs in the Education Department would be frozen at this year's levels. Measure would also trim postal subsidies by $222-million, freeze spending for health-manpower programs at the fiscal 1985 level of about $225-million, and allow the National Institutes of Health to support 6,000 new competitive research grants.	**Conference report passed August 1 S Rep 99-15**	**Conference report passed August 1 H Rep 99-133**
HEALTH PROFESSIONS (HR 2410, S 1283). Both bills would extend programs aiding health-professions schools and students for three years. The measures would freeze authorized spending for most programs in fiscal 1986 at fiscal 1985 levels, for a total of about $141-million. House measure would authorize about $148-million for fiscal 1987 and $155-million for fiscal 1988. Senate bill would significantly reduce federal spending for health-professions aid in coming years, authorizing $141-million in fiscal 1987 and $135.4-million in fiscal 1988.	Passed July 19 S Rep 99-105	Passed July 15 H Rep 99-145
NATIONAL HEALTH SERVICE CORPS (HR 2237, S 1285). Both measures would extend the life of the health-service corps for three years. House bill would authorize 1,175 new scholarship awards over three years; Senate bill would allow only 450 new awards. Senate bill also restricts individual scholarships from exceeding $15,000 in 1985-86 and would adjust that limit to reflect increases in tuition costs in subsequent years. House bill authorizes $83.3-million for the entire program in fiscal 1986, $91.6-million in fiscal 1987, and $97.5-million in fiscal 1987. Senate bill authorizes spending ceilings of $73.4-million in fiscal 1986, $70.6-million in fiscal 1987, and $66.8-million in 1988.	Passed July 19 S Rep 99-107	Reported May 23 H Rep 99-144
NATIONAL INSTITUTES OF HEALTH AUTHORIZATION (S 1309, HR 2409). Both measures call for the creation of a new National Institute of Arthritis and Musculoskeletal and Skin Diseases. House would also set up a new National Institute of Nursing in the N.I.H. Both measures would establish new guidelines for institutions that use animals in laboratory experiments. House bill would extend the life of the N.I.H. for only one year and would allow spending levels of $1.3-billion for the the National Cancer Institute, $788-million for the National Heart, Lung and Blood Institute and $238-million for National Research Service Awards in fiscal 1986. Senate bill would extend the N.I.H. for three years and would authorize $1.2-billion for the National Cancer Institute, $809-million for the National Heart, Lung, and Blood Institute, and $223-million for National Research Service Awards in fiscal 1986.	Passed July 19 S Rep 99-108	Passed June 17 H Rep 99-158
NATIONAL SCIENCE FOUNDATION FISCAL 1986 AUTHORIZATION (HR 1210, S 801). Bills would freeze spending in the coming fiscal year at the fiscal 1985 level of $1.5-billion, including $50.5-million for science education.	Ordered Reported July 17	Passed April 17 H Rep 99-44
NURSING EDUCATION (HR 2370). Bill would extend nursing-education programs for three years, authorizing $54.1-million for fiscal 1986, $55.4-million for fiscal 1987, and $56.6-million for fiscal 1988.	Passed July 23 S Rep 99-106	Cleared for President July 31 H Rep 99-161

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TAX REFORM. Administration proposals would eliminate charitable deductions for people who do not itemize their tax returns and make certain donations of appreciated property, subject to a new minimum-tax provision. The measure would narrow the scope of credits to companies that support research projects at colleges and extend the tax-free status of employer-provided tuition benefits. It would also curtail the use of tax-exempt bonds for student loans and facilities.	Hearings under way	Hearings under way
SUPPLEMENTAL APPROPRIATIONS FOR FISCAL 1985 (HR 2577). Compromise bill would provide an additional $720-million for interest subsidies on Guaranteed Student Loans and an extra $287-million for Pell Grants to allow maximum awards in the current fiscal year of $2,100, covering up to 60 per cent of a student's educational costs.	Conference report passed August 1 S Rep 99-236	Conference report passed July 31 H Rep 99-236
APPROPRIATIONS FOR THE DEPARTMENT OF AGRICULTURE FOR FISCAL 1986 (HR 3037). Bill would provide $276-million for the Cooperative State Research Service, $24-million more than President Reagan's request, and $341-million for the Extension Service, $77-million above his request.		Passed July 24 H Rep 99-211
APPROPRIATIONS FOR ARTS, HUMANITIES, AND MUSEUM SERVICES FOR FISCAL 1986 (HR 3011). Bill would provide $166.7-million for the National Endowment for the Arts, about $22.2-million more than the President requested, and $139.5-million for the National Endowment for the Humanities, $13.5-million above the President's request. The measure also allots $21.6-million for the Institute of Museum Services, which the President proposed to phase out.		Passed July 31 H Rep 99-205
APPROPRIATIONS FOR CIVIL-RIGHTS AGENCIES FOR FISCAL 1986 (HR 2965). Bill would provide $12-million for the Commission on Civil Rights, about the same amount it received this year, and $165-million for the Equal Employment Opportunity Commission, about $6-million more than the President requested and about $1.3-million more than it received this year.		Passed July 17 H Rep 99-197
APPROPRIATIONS FOR THE DEPARTMENT OF ENERGY FOR FISCAL 1986 (HR 2959). House bill would provide $685-million for general science and research activities, the same level requested by President Reagan, and $385-million for magnetic-fusion activities, $5-million less than the President's request. Basic energy sciences would receive $422-million, $13-million more than the President's request. Senate bill would provide $681-million for general science and research, $382-million for magnetic-fusion activities, and $438-million for basic energy sciences.	Passed August 1 S Rep 99-110	Passed July 16 H Rep 99-195
APPROPRIATIONS FOR THE NATIONAL ARCHIVES AND RECORDS ADMINISTRATION FOR FISCAL 1986 (HR 3036). Bill would provide $103.5-million, $4.6-million more than is currently being spent.		Passed July 30 H Rep 99-210
APPROPRIATIONS FOR THE NATIONAL SCIENCE FOUNDATION AND VETERANS ADMINISTRATION FOR FISCAL 1986 (HR 3038). House bill would provide $1.52-billion for the science foundation in the coming fiscal year, $46-million less than the President's request. The House measure includes $1.35-billion for research and related activities, $51 million less than Mr. Reagan's request, and $60.5-million for science education, $10-million more than his request. Senate measure would provide $1.54 billion overall, $1.36-billion for research and related activities, and $60.5-million for science education. The House bill would provide $892-million for GI Bill education and training benefits. The Senate measure would provide $771-million for education and training.	Ordered Reported July 31	Passed July 25 H Rep 99-212

One piece of legislation introduced in the Maryland General Assembly is a bill regulating the use of video display terminals. According to its sponsor, Delegate Anne Perkins (D-Baltimore City), the bill would be unnecessary if businesses and organizations took the intitiative to review the possible health and safety problems of terminals on the employees who use them.

The highlights of current federal legislation and their potential impact on community colleges are discussed on the following pages:

Bill	Status
H.R. 1869. Repeals the 1984 act that required "adequate contemporaneous records" to be kept to cover personal use of employer-subsidized vehicles.	Approved by both House and Senate, signed by President Reagan May 24 as Public Law 99-44.
*S.558; H.R. 1356. Turns Section 127 of Internal Revenue Code into permanent law, so that employee educational benefits paid by employers will not be taxed as employee income.	Reversing previous opposition, the Administration's tax simplification plan now supports Section 127. House and Senate hearings on tax reform expected to run all summer.
*Research and development tax credits, S. 58/H.R. 1188. Danforth-Pickle bill reauthorizes tax credits for industries that donate equipment to university research. Makes postsecondary technician training eligible for like gifts.	More than 155 House members have cosigned H.R. 1188, led by Rep. J. J. Pickle, D-TX. Some 25 Senators are sponsors of S. 58, led by Sen. John C. Danforth, R-MO. No Committee action is likely until Congress moves on the broad issue of tax simplification.
*Technician training equipment, instructional tax credits, S. 448/H.R. 1355. Grassley-Gibbons bill provides tax credits both for equipment gifts to postsecondary technician training (like equipment credits for university research) and loaned instructors or part-time jobs to update faculty skills.	Because of Senate hearings and Senate approval of similar Grassley-Gibbons bill in last Congress, more hearings are unlikely. Action probably deferred until committees take up tax reform and tax simplification.
H.R. 1090. Amends Job Training Partnership Act to require basic or remedial education for all summer youth program participants. "Hold harmless" clause would assure each Service Delivery Area 90% of previous year's support.	Bill drew mixed views at May 22 hearings in House Subcommittee on Employment Opportunities. Prospects for further Committee action are uncertain.
H.R. 700. Civil Rights Restoration Act of 1985. Restores broad enforcement to four major civil rights laws, curtailed last year by Supreme Court's ruling in Grove City v. Bell.	House Judiciary Committee and Education and Labor Committee have adopted differing bills. Ed/Labor version contains anti-abortion amendment. Rules Committee must decide which, if either, bill it will send to the House floor.

PRIORITIES UPDATE (continued).

H.R. 2370. Nurse Education Act of 1985. Extends through FY'88 nursing programs that combine educational courses and clinical training. Provides grants for nurse education.	Committee on Energy and Commerce marked up bill and reported it to House June 5. H.R. 2370 likely to pass House on suspension calendar before Congress recesses June 28 for July 4 break.
H.R. 1219. National Training Incentives Act, led by Rep. Nancy L. Johnson, R-CT. Expands displaced worker training incentives, through employee training tax credit for employers. Requires study by Secretary of Labor on nationwide job bank.	Referred to both Ways and Means Committee and Education and Labor Committee, bill has more than 45 cosponsors. Committee action pending.
*H.J. Res. 125. Designating October, 1985, as National Community College Month.	Passed House May 2 by 410-0 vote--with 220 cosponsors. Referred by Senate to Judiciary Committee. At least 24 Senate sponsors needed to spur Senate action.
*H.R. 40; S. 697. Skilled Enlisted Reserve Training Act (SERTA). Enables military services to contract with community colleges to train technicians who complete associate degree in process.	Bills introduced by Rep. Charles E. Bennett, D-FL, and Sen. Strom Thurmond, R-SC, and referred to the Armed Services Committees of House and Senate. No hearings yet scheduled.

Jackson and Masnick in their analyses of regional growth patterns conclude:

> "The 1980's will bring heightened contention about the allocation of inexpensive, smaller housing (to poor adults or affluent young singles), about work rewards (for new, long-term, or retired employees), and about social spending (for schools, housing, buses, or hospitals). The nation's unstable age structure will exacerbate these difficulties. The baby boom cohort will be settling into family life in substantial homes and trying to protect what they have amassed just when a growing wave of people is reaching retirement age, thereby overloading pension funds and hospitals, and when the baby-boom offspring will be needing schools. The need for -- and resistance to -- taxes will peak simultaneously."

They believe that as total nationwide growth slows, one section gains only when another loses - a much more sensitive situation politically. We may have already entered a period of increasing polarization among regions.

Lawrence Rutter in "Strategies for the Essential Community," maintains that if local governments are to cope successfully with the challenges of the coming decades, they will have to focus on four basic strategies - getting by modestly, regulating demand, skeptical federalism, and finding the proper scale and mix of government services.

Holding the line indefinitely may become the order of the decade for public organizations, and policy strategies will be based on the assumption that the scope of local government will remain constant. Getting by modestly recognizes that the current reality suggest economic and demographic growth is not inevitable. No-growth budgets, contracting out services to the private sector, and the use of volunteers in public services, are a few methods which may be utilized more frequently under the strategy of getting by modestly.

Getting by modestly also may require coming to grips with the zero-risk ideal, that is, the tendency to overprotect at the expense of taxpayers. For example, in fire safety, should we work toward zero risk of property loss? Or is some degree of risk acceptable - providing we continue to reduce loss of life? How much do we pay for a decrease of 1% in the risk of property loss? People will recognize that risk is implicit in almost all public policies and exposing the public to some risk is not inhumane.

Another possibility is the use of a pricing system for government services. Price or fees for services would reduce demand. People would think twice about using a city or county service if there is a personal out-of-pocket cost. Thus, it may be possible by imposing fees in a block-by-block basis to allow people to choose the level of service (for example, twice weekly trash pick-up as compared to a standard once a week service) they want and agree to pay for.

Another strategy, skeptical federalism, involves buying back local independence from the national government. To avoid being swallowed up by the federal government, ways need to be found to make programs less attractive. Local governments may want to take a cold look at grants from the central government.

The fourth aspect is finding the proper scale and mix for government services. For Rutter, the issue is whether local citizens, elected officials, and professional staff people should work to regionalize and/or decentralize the level at which local government programs and services are delivered. The future is in both regionalization and decentralization with a greater emphasis on decentralization of local services and programs. The mix of services will be determined in large part by the mix of people to be served. One large population which will gain clout and attention are the elderly. Their needs in housing, transportation, and recreation will command attention.

On a more local level, at least one expert believes that community colleges are reasonably well positioned in the political arena. S.V. Martorana, in an article "Community Colleges in State Legislation: Favored or Threatened and So What?," offers some points on the side of state legislative action supporting community college purposes and operations. They are that state legislators and governors generally treat community colleges relatively well in appropriating funds needed for current operations and capital outlay. The general public policy framework for postsecondary education created by state lawmakers reflects allegiance to an encourages values typically associated and attached to community college education, and state legislative action shows strong appreciation of the educational services community colleges provide and of the worth they are to the general welfare of a state's society and economy. On the negative side is the concern that public policymakers are more interested in the ends they wish to see accomplished by the educational enterprises in their state than they are with different means which may be used to acomplish them. The effect of this proposition is to create a condition where both the identity of community colleges can be lost, or seriously decreased, and the flexibility of their operations (institutional autonomy to control and act) can be seriously eroded.

Martorana believes that educational leaders of all segments will find themselves more than ever in direct competition with one another as well as with other social service institutions for legislative favor in fiscal support. The challenge may be to secure required support without jeopardizing the needs of other sectors or triggering conflict among social service institutions. Compromise and consensus may become more important strategies than ever before.

The State and Higher Education

As the Maryland State Board for Higher Education reported, among students enrolled for degree credit in institution of higher education, 87% were in the public sector. Of these 51% were in community colleges. Fifty-two percent of degree-credit students were attending part time. Most of these students are older and women and blacks continue to grow in numbers on campus. Like students nationwide, students in Maryland institutions have shifted away from the liberal arts and sciences and toward programs with strong career orientations. For example in 1984, 58% of all associate degrees were awarded in career programs.

A major thrust by public-four year institutions has been to improve the academic levels of entering students. Toward this end, public four-year institutions have raised academic standards. Catonsville's efforts to strengthen academic expectations and standards are not only important to continue in their own right but also are a means to better prepare individuals for success as transfer students.

A year long study of community college financing by the SBCC resulted in the passage of legislation by the 1985 General Assembly which increases the state aid from $910 FTE to $980 FTE for most community colleges. The State Board for Community Colleges received an additional $6 million in capital bond authorizations. The annual grant per board of trustees not on the small and regional formula was increased from $270,000 per year to $350,000. In addition a new program of grants based on the number of low-income students is established. Each community college is budgeted to receive $115 per Pell Grant recipient under this program. For all years after FY 86, State aid to community colleges will be based on actual FTE enrollments attained in the fiscal two years prior to the time of payment. The Board of Trustees for the Baltimore County Community Colleges approved a $1.00 increase in tuition rates raising the cost to $28 a credit effective with the Fall, 1985 semester. The level of support provided by Baltimore County remains high although a $408,000 budget cut was made to the FY 1986 community colleges' budget request.

According to a recent Gallup Poll of Baltimore County residents (The Sun, October 25, 1984) two thirds of county residents believe public school students are not forced to work hard enough in school and more than half say they would pay higher taxes for better schools. In addition 80% of residents favor requiring high school seniors to pass an examination as a condition of graduation.

The Chronicle of Higher Education (April 3, 1985) reported that according to Clark Kerr, a past university president and respected observer of higher-education, the federal era in higher education has clearly ended. For at least the next 30 years new initiatives will come from the states instead of from Washington. This shift is due to the Reagan Administration's education policies, the budget deficit, and national debt and planned new weapon systems. Because of this money for higher education will not be available even if the policies were. However federal support for research and student assistance will continue. According to Kerr, in most states the governor has become the single most important person in higher education. At a conference Kerr addressed a former governor urged campus leaders to determine how higher education relates to their governor's concerns about elementary and secondary education and emphasis was placed on tactful communication: The governor needs to be talked with, not to, not at, and not down to!

Governors are facing at least five grave issues: competition between public and private institutions of higher education, the conflict between what governors want to do with the most elite and less-elite institutions, what funding formulas to use to replace those based on enrollment when enrollment drops, faculty unionization efforts could pick up and go to the governor, and affirmative action will move more and more from the federal to the state level.

Impacting on community colleges are the following pieces of legislation enacted by the 1985 General Assemby:

Summary of Higher Education Legislation Enacted by the 1984 Maryland General Assembly

Major enacted leglislation and resolutions affecting the SBHE and the higher education community is summarized below. Companion House or Senate bills are not listed.

BILL/SPONSOR	TITLE AND SUMMARY
SJR 11 Boozer, Bambacus, Derr **HJR 50** The Speaker, Kopp	**Higher Education — Governor's Commission:** Requests the Governor to establish the Commission on Excellence in Higher Education; authorizes the Commission to examine and report to the Governor on the status of funding and quality of higher education in Maryland; specifies other questions to address; specifies membership on the Commission and composition of an advisory board; requests the Governor to provide staff for the Commission.
SB 97 Komenda, et al	**Creation of a State Debt — Capitol Institute of Technology:** Authorizes creation of a $1.5 million State debt with proceeds to assist the college in the planning, design and construction of Telecommunications Hall.
SB 106 Stone (Departmental; SBHE)	**State Board for Higher Education — Approval Standards:** Clarifies the authority of the Board to consider need evaluations when approving certain academic programs and certifying certain postsecondary institutions.
SB 142 Hoffman	**Higher Education — State Scholarship Board Membership:** Expands the membership and alters composition of the Board; adds a member who represents an independent postsecondary proprietary institution.
SB 196 Stone	**Fire-Rescue Education & Training Commission — Composition:** Alters the membership and certain quorum requirements of the Commission; provides that additional members may not be from jurisdictions represented on the Commission as of June 30, 1985. (Membership on the Commission will increase to 13).
SB 229 Bambacus	**Criminal Law — Hazing:** Prohibits hazing of certain students; provides penalties for violations of this Act; prohibits a certain defense of violations of this Act.
SB 235 Stone	**Higher Education — Illegal Use of Transcripts, Diplomas and Grade Reports:** Prohibits forgery, counterfeiting, or alteration of a transcript, diploma or grade report of a postsecondary institution; prohibits certain uses of a forged, counterfeit or altered transcript, diploma or grade report; provides a penalty for violation of this Act.
SB 251 Levitan	**State Aid to Nonpublic Institutions of Higher Education:** Reduces the percentage of State General Funds used to calculate certain State aid to nonpublic institutions; requests that the Governor's Commission on Excellence in Higher Education examine factors relating to increased State aid to nonpublic institutions. (This is a technical change which compensates for increases in the base rate to calculate aid to nonpublic institutions.)
SB 325 Stone (Departmental; SBHE)	**State Board for Higher Education — Credit Card Service Fee:** Changes to 2.5% the maximum amount of the vendor discount, service charge or similar fee that certain credit card companies may charge public higher education institutions. (This will enable more institutions to contract for credit card services for payment of tuition, fees, room and board.)
SB 415 Levitan	**Creation of a State Debt — Public Junior, Community and Regional Community College Facilities Construction Loan of 1985:** Authorizes the creation of a State debt of $6 million with proceeds to assist the counties and Baltimore City in financing the design and construction of buildings for these institutions, including site improvements and acquisition of real property or interests in land required for these projects.
SB 486 Derr	**Creation of a State Debt — Hood College:** Authorizes the creation of a State debt of $345,000 with proceeds to assist the College in the planning, design, renovation, alteration and equipping of the Hodson Building and Annex and the Williams Observatory.
SB 809 Stone	**State Council on Vocational-Technical Education:** Creates the State Council on Vocational-Technical Education; provides for its powers and duties, and generally relates to the establishment of this Council; makes this Act an emergency measure.
SB 812 Rasmussen	**Teachers and State Employees — Deferral of Compensation:** Adds a new article to the Annotated Code of Maryland, to be designated as "State Supplemental Compensation Plans;" places in one article statutes governing deferred compensation plans available to teachers and State employees; creates a Board of Trustees to administer the plans; removes certain limitations on the investments of one plan; generally relates to deferred compensation plans.
HB 654 Gordon	**Higher Education — State Scholarship Board Student Member:** Provides for a nonvoting student member on the Board; delineates requirements for a student's eligibility to be a member.
HB 934 Kreamer et al	**Higher Education — Tuition Assistance — Areas of Critical Need:** Alters the meaning of "degreed recipient" in determining eligibility to receive certain tuition assistance in order to enroll in programs to teach in areas of critical need in the State.
HB 1048 The Speaker	**Community Colleges — State Funding:** Alters the computation of State aid to community colleges and increases the rates for certain community colleges; establishes a new program of low income student grants and provides for the administration of these grants and computation of the funding level; requires maintenance of local effort; authorizes the State Board for Community Colleges to promulgate rules, make payments and administer the new program; alters the basis for calculating enrollment for State aid purposes for Fiscal Year 1987 and thereafter; alters certain provisions relating to audit reports and management letters for community colleges and directs the withholding of portions of State aid payments if satisfactory progress is not made in correcting identified problems; provides for a $7.2 million increase in operating funds for community colleges in FY 1986.
HB 1391 Mitchell et al	**Creation of a State Debt - Johns Hopkins University School of Hygiene and Public Health:** Authorizes creation of a State debt of $2 million with proceeds to assist the University in the planning, etc. of laboratory, teaching and office facilities for its School of Hygiene and Public Health.
HB 1392 Mitchell	**Creation of a State Debt — Mount Saint Mary's College:** Authorizes a State debt of $1,150,000 with proceeds to assist the college in the planning, etc. of the library, the communications center, replacement facility for physical plant services, and various utility systems.
HB 1670 Muldowney	**University of Maryland, College of Engineering Instructional Television Loan of 1984:** Alters the purpose of the loan authorized under Chapter 444 of the Acts of 1984 to permit use of the loan proceeds to design, construct and purchase capital equipment for a telecommunications link between UMCP, UMBC and the Hagerstown area to provide College of Engineering ITV services to the Hagerstown area.

Corollaries

(1) Become more sensitive to those lifestyle groups (i.e. Sustainers, Belongers, Emulators) which are likely to have needs which the community college can serve and may be supporters of the community college under various economic scenerios.

(2) Be prepared to adjust personnel policies and practices depending on changes made to the "employment at will" doctrine.

(3) Assess and plan for the long-term impact of extended employment of tenured faculty or shortened employment of tenured faculty depending on whether they are included or excluded from changes to retirement laws.

(4) Reaffirm College's commitment to equal employment opportunity and comparable worth or reassess the College's commitment to these policies and practices.

(5) Continue communication by community college leaders with county and state legislators on the worth to the public of the college's service, especially in successful partnerships between colleges and businesses and industries to benefit local and state economic development and efforts to strengthen primary and secondary education.

(6) Enlist the support of private sector and community groups in efforts to lobby for the interests of community colleges on the county and state level.

(7) Develop a program emphasis on servicing needs of groups who may be political oldies (senior citizens, businesses and industries, prime age labor force participants, women, minorities, etc.)

(8) Continue to support or oppose (i.e. the laws, formula

funding) proposed federal and state legislation as it may effect the current and future success of the College's mission.

(9) As greater emphasis is placed on state financial support and control of higher education, continue to concentrate on appropriate and tactful communications with SBHE, SBCC and the Governor.

(10) Develop strategies for the College's role in securing appropriate funds from the county, iuncluding holding our share of county support and increasing our share of county funds.

(11) Develop a contingency plan for the College living with decreased county support.

The Current Condition of Higher Education

The information contained in this section is not intended to be a comprehensive and exhaustive assessment of the current status of higher education. Rather the information which follows represents a sample of views on the current issues confronting higher education.

Over the past year a series of reports - including Integrity in the College Curriculum (Association of American Colleges), To Reclaim a Legacy (National Endowment for the Humanities) and Involvement In Learning (National Institute of Education) have focused attention on education at all levels, especially the need for improvement in the quality of higher education.

The intense national concern over quality - or lack of it - in America's schools has spread to undergraduate education at the country's colleges and universities. The recommendations of these reports are many and varied but they focus on the need for institutions to define clearly what a student should know and be able to do when he or she completes their program of study. Involvement in Learning summarizes this call, indicating that student outcomes are the measure of an educational institution's quality. Excellence, it says, requires that institutions of higher education produce "demonstrable improvements in student knowledge, capacities, skills and attitudes between entrance and graduation;" and "that these demonstrable improvements occur within established, clearly expressed, and publicly announced and maintained standards of performance for awarding degrees based in societal and institutional definitions of college-level academic learning." The report also stated that the college curriculum has become excessively vocational in its orientation and recommended that "all bachelor's degree recipients should have at least two full years of liberal education." Community colleges are urged to improve their other outcomes - especially, their student completion, transfer and job placement rates.

At the same time that colleges and universities are called upon to improve the quality of teaching and learning and measuring their outcomes, other continue to define quality by admission standards.7 Many colleges are being asked by state governing boards to establish formal requirements for admission to degree programs of study, for example in teacher education. For example a recent report in The Chronicle of Higher Education states that for the first time, sophomores in Florida's public colleges and universities must pass all four portions of the state's College-Level Academic Skills Test before they can earn an associate-of-arts degree or continue as juniors.

The widespread criticism of higher education may be related to the concern on the part of many parents and actual or potential students as to whether or not college is worth the investment.

A recent Newsweek (April 29, 1985) article pointed out that the substantial costs of attending college, coupled with the reports criticizing colleges for failure to deliver a well rounded quality education, have made many Americans question whether higher education provides an education worth having. As Newsweek suggests, colleges have to do something to convince people that they are getting their money's worth.

According to Jan Krukowski, "What Do Students Want?," Change, (May/June, 1985), the answer is clear and simple - status. Krukowski, a member of a firm which markets colleges and universities, believes the real problem is not the decline in eighteen year olds. The real problem is that it's harder and harder to find students who want to go to college to receive the education a college wants to offer. His research indicates that students are eager and willing to pay to attend a college with the reputation or programs they believe will lead to high paying jobs and top professional schools. Today, everyone wants practical material benefits from college and he suggests that educators must devote their best efforts to making the case for a liberal arts education.

The question "Is College Worth It?" may be answered in the affirmative according to the results of an AACJC survey of the public's evaluation of community colleges. The AACJC Letter (October 30, 1984) reported the results of a survey of adults which revealed that: (1) three out of four Americans feel that two year institutions provide a good education at a low or reasonable cost; (2) four out of five individuals feel an associate degree from a community college is very useful in helping a person transfer to a four-year college or university, and three out of four feel that such a degree is very useful in helping a person get a job that requires some expertise or training; (3) about 67% think that the overall quality of all higher education in the U.S. is good or excellent; and (4) increasing federal aid to higher education is third on their list of priorities for U.S. government spending in the years ahead; and (5) despite money worries, 36.4% of adults polled said they wanted more school, up nearly 50% over 1983.

With higher education under attack a number of colleges have responded by instituting curriculum changes. The New York Times (March 10, 1985) reported that "in the last couple of years, hundreds of colleges, including virtually very major liberal arts institution, have stepped up the number of mandated courses, redesigned their general education programs and proclaimed that graduates must now possess skills ranging from mathematical proficiency to computer literacy." More attention is placed on basic academic skills on the part of many institutions of higher education. Coupled with curriculum changes is the finding The Chronicle of Higher Education (May 29, 1985) that many colleges have succeeded in taming grade inflation.

Concern about the quality of education is a prominent issue but like other issues, it occurs in cycles. As K. Patricia Cross The Sun (November 18, 1984) has noted, a rising tide of interest in school reforms is inevitably followed by an ebb tide of indifference. She warns that if we are not more thoughtful about the goal of high quality education and how to attain it, we will spend the 1980's correcting for the permissiveness of the 1960's and 70's, and we will spend the 1990's correcting for the overregulation of the 1980's."

The August/September 1984 issue of the Community and Junior College Journal contained an article which discussed the four most critical issues facing community colleges today: finance, access, quality and technology. With regard to finance it is not clear whether mission has been driving finance or whether funding is determined by mission. Regardless, many institutional leaders have called for new funding mechanisms that are not enrollment driven. Community colleges must be able to demonstrate effectiveness, especially as they compete with other institutions of higher education. A second issue is access and in their quest for improving quality, access must not be devalued. A third issue is technology and it is changing curriculum, teaching and classroom performance. The costs to introduce sophisticated technology are great and many programs experience rapid equipment obsolescence. The impact of these changes on the balance between the liberal arts and vocational education is a matter of utmost gravity. Last, but not least, is quality. There is great unevenness across institutions in courses and programs, faculty evaluation systems, staff development and other areas. Many of these areas are overdue for review and update. Some colleges have greatly reduced their emphasis on the liberal arts and run the risk of moving to the periphery of the American education system.

The issue of quality is linked to the quality of the entering product. According to Marie Winn, "The Plug-In Generation," Change, (May, June, 1985), "today America is confronting a lost generation of its own, an enormous cohort of young people who appear to be less skilled academically, more interested in what's in it for me, than students of the past." She believes that efforts to upgrade the quality of students are needed and the promotion of reading, not media literacy, must be the most urgent mission of schools and teachers.

According to Robert Atwell, President of the American Council o Education, additional issues of uncern to higher education include balkanization in higher education and corporate education. As Atwell has noted, within a campus there are many departments which defend their turf but have little concern for the whole. This factionalization is reflected on the state and national level as well as higher education is represented by many organizations in Washington. He recommends the need for coalitions for politics is built on coalition building on the local, state and national level. The competition posed by corporate education has prompted Atwell to ask, what rigidities in higher education may be responsible for this growth?

Recognizing the importance and numbers of minority group members enrolled in higher education and their unacceptable failure rates, Samuel Betances maintains that the responsibility of education is to help people reject - rejection. In addition to the three R's and regardless of budgets or the political times, educators must help students espcially from minority - group backgrounds, to reject - rejection which is widespread in our culture and frequently experienced.

Articles having to do with the status of the faculty in higher education have also given rise to some concern. The Chronicle of Higher Education (March 27, 1985) reported that faculty morale is especially low in the arts and sciences, with many professors feeling "abandoned" by their institutions. By not addressing this problem higher education may be undermining its own efforts to revitalize liberal education. Low pay, loss of collegiality, and wide differences in compensation across disciplines are contributing to faculty anxiety, stress and alienation. Other faculty complaints stemmed from inadequate facilities and the need to work with too many ill-prepared students.

Comparatively low salaries and deteriorating working conditions are threatening to deplete higher education's supply of outstanding teachers and scholars and unless corrective action is taken, institutions will be unable to attract adequate replacements for faculty openings over the next 25 years.

The Chronicle of Higher Education (November 21, 1984) reported that college and university presidents are spending more and more time away from their campuses raising money and defending their institutions to a skeptical public. According to this article, "selling" the institution has become the first priority - to legislators, taxpayers, students, alumni and the community. Presidents of public two-year colleges were the hardest pressed on financial issues. They reported the smallest increases in support from alumni, the local community and the public.

The Future of Postsecondary Education

George Keller, a consultant to governors and presidents of higher education institutions, has spoken about new social expectations for higher education. In his view, the most important is the emphasis on quality in education. On the local, state and national levels the forces pressing for quality in education during the past five years have become more powerful; the forces for equity have become less powerful. The need for more skilled people who possess intellectural might is a major reason why quality is a more pressing concern. Keller identifies three social expectations which higher education will confront: (1) the growth in immigrants from Asia and Latin America who will become a powerful force in the nation; (2) the growth in enrollments of adults and seniors in higher education institutions; and (3) meeting the needs of American Blacks. The task for higher education in the future is to increase quality, while devising new structures and programs to accomodate the needs of the groups mentioned above. Keller maintains that education in the future must not be Eurocentric but must move to an Asian orientation. Furthermore, the needs of a service/information society require people who think clearly, write and speak well and are friendly. He believes that education must return to character development to meet the challenges of a sophisticated economy.

Two grave situations which the nation will confront are the increasing numbers of older Americans and the plight of black Americans. Keller is concerned that America has fewer and fewer young people working harder and harder to support benefit programs for more and more older people. Many of the young are drawn from minority groups and many of the old are white. Something must be done to prevent class warfare from breaking out in the future.

The social disorganization of the black community is of great concern to many educators. As Keller point out, since family location is important to educational success, the increase in illegitimacy among many blacks may become even more of a problem in the future as it limits the academic success of black children.

Thomas Ehrlich, Provost of the University of Pennsylvania, has identified a number of basic assumptions in higher education which will be challenged in the 1990's. The period from 1990 - 2010 will be marked by a leveling off of enrollments and a large increase in faculty retirements. This mass need for the replacement of faculty will challenge five basic assumptions. First, the notion that teaching and research go hand-in-hand. As more and more researchers and research institutes seek funds, the spheres of research and teaching will split further apart from each other in the future. More and more faculty will specialize in research and others in teaching but not both. Second, the notion that faculty membership is a career will be challenged. Future faculty replacements will come from outside the traditional academy. An increasing share of the faculty will be part-time and more practioners will serve as faculty members. Increasingly faculty members will work outside as practitioners. Third, the notion that faculty are a distinct and privileged class. Faculty as proected and "pampered" class will diminsh in the future, especially if they are involved in a separate consulting practice and earn an outside income. Fourth, the notion that faculty are in full control of academics will be challenged. Increasing financial pressures have resulted and will result in greater control and authority over academic matters by administrators in the future. Attempts at faculty unionization will be unlikely in the future, especially since federal courts have ruled that faculty members are managerial employees and therefore may not bargain collectively under federal labor law. Fifth, the notion that a small number of elite colleges are the role models of others will be challenged. In the future a small group of major research universities will train faculty. Successful institutions will become more successful but others less so will decline or go out of existence.

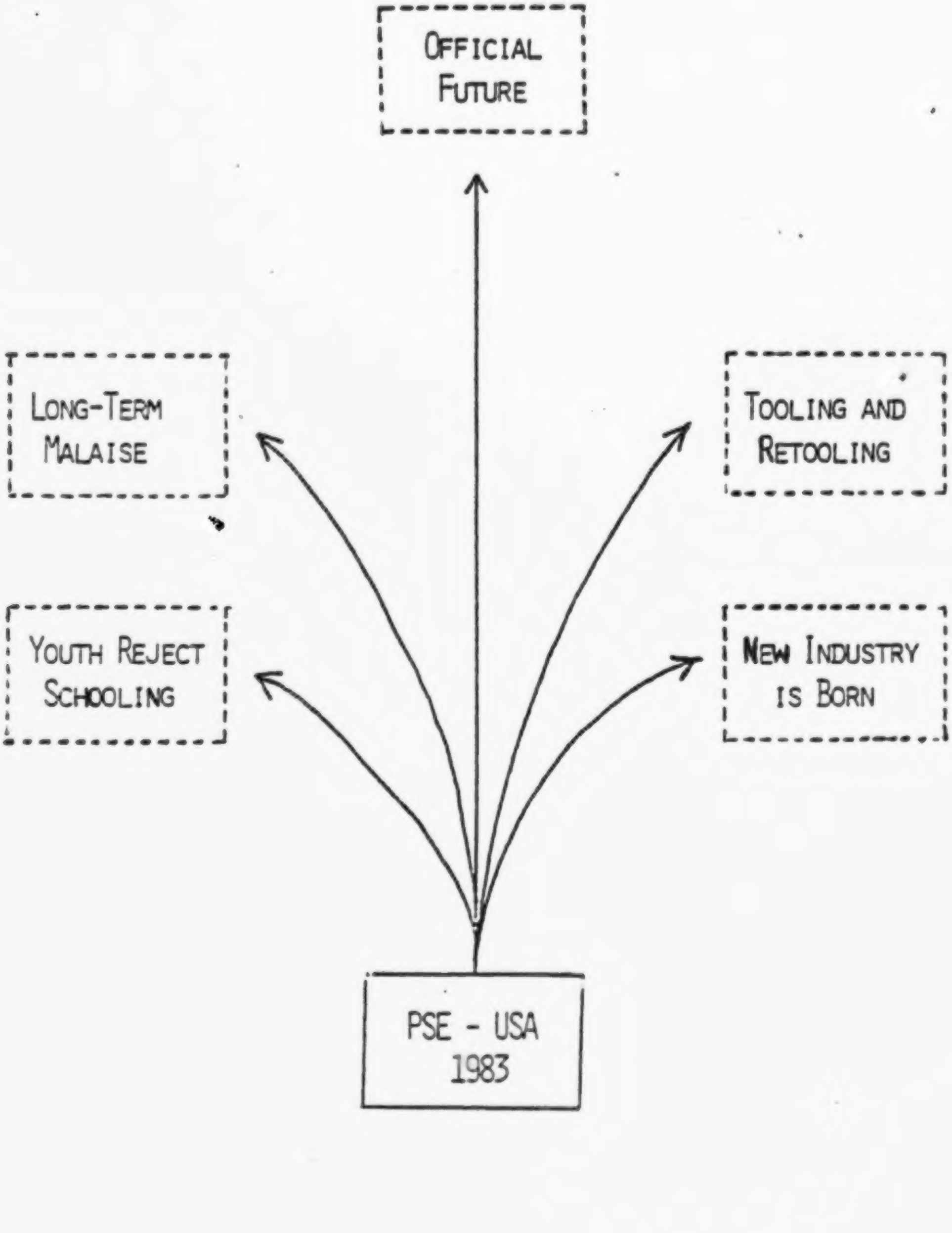
Hoke L. Smith, President of Towson State, in an article "Planning for the Coming Resurgence in Higher Education," Change, (September, 1984) agrees that in the next 15-25 years there will be a need to replace large numbers of retiring faculty and provide educational opportuniies for new citizens of Hispanic and Asian origin. He also believes that our aging population will demand new social services and will require trained professionals in areas such as economic counseling, health scinces and recreation.

In the coming decades, according to American Council on Education fellow Carol Pearson, artificial intelligence and biotechnology will prompt a major reemphasis on spiritual questions about humanity and people will look to the humanities and higher education for spiritual and philosophical guidance. Frank Newman, a fellow at the Carnegie Foundation believes that a fundamental change in teaching will be needed. According to Higher Education Daily (November 16, 1984) Newman believes that current college courses have become more specialized and remote from increasingly complex real-world problems.

Marvin Feldman, President of the Fashion Institute of Technology, writing in theAACJC Journal (Aug/Sept 1984), believes that the educational systems of the future may be a nonsystem. He envisions a multitude of centers of initiative in education - electronically equipped households, churches, museums, youth groups, factories and offices, proprietary schools, apprenticeships, schools and colleges and many more. And running in and around these entitities like glue will be the community college - sometimes strengthening them, sometimes moving boldly into a gap, sometimes withdrawing from a field where alternatives are adequate and sometimes certifying the educational results achieved by other institutions.

Richard B. Heydinger, Assistant to the Vice President for Academic Affairs, at the University of Minnesota, in a paper "Using External Information in Planning: Some Tools for Expanding our Vision and Enhancing Our Strategic Thinking," offered five global scenarios for the future of postsecondary education in the United States. These scenarios (devices for ordering one's perceptions about alternative environments in which one's decisions might by played out) which are developed on the following pages reflect interpretations of possible futures. The assumptions underlying each scenario and inferences drawn from them are, of course, only opinions of what might happen to higher education in the years to follow. Included to spark thought and provide help they need, however, to be evaluated with a certain skepticism.

FIVE GLOBAL SCENARIOS FOR POSTSECONDARY EDUCATION IN THE UNITED STATES



THE OFFICIAL FUTURE

The course which the United States imagined for itself in the early 1980's has been followed: high tech industries have continued to expand with renewed emphasis and support from all sectors of society, including higher education. Computation and communications has had a significant impact on all of society — with businesses, homes, and all of education feeling the impact of the "computer revolution." The manufacturing decline in the States has stablilized with heavy industry now only providing 13% of the nation's jobs. The economy, however, has been volatile, with periods of moderate growth followed by recessionary cycles. This has prevented long term capital investment which is necessary to embark on a period of sustained growth; however, many high tech sectors of the economy have been on a steady growth curve.

After much debate in the 1980's about the best approach for dealing with the enrollment decline in higher education, the federal government and most states either consciously or by default adopted a policy of letting the market determine which public institutions would thrive and which would fail. Although some had advocated a studied approach to determining which institutions should receive funding, the political stakes were too high to permit this type of managed approach. Instead, institutional funding was based on enrollment. Generally, the demand for higher educational programs followed the demographic trends of the traditional college-age population. Although "life-long" learning has offset a portion of the downturn, the part-time student population has not enrolled in numbers large enough to counteract the decline in the number of younger people. More than ever students realize that a college degree is the calling card to meaningful employment. Student interest is focused on those fields with career opportunities. With employment opportunities limited, each passing year witnesses students approaching their studies with even more seriousness than the previous year. Today students are outspoken in their demand for high quality instruction and up-to-date facilities.

In the past decade industry has established training and educational facilities at an unheard of pace. Today over 400 industries are accredited to offer MA's with 175 of these licensed by their home states to offer the BA degree. Competition from industry at the undergraduate level has had little influence on higher education; most of the students enrolling in industry-based BA programs are company employees who need only to complete at most a few semesters of coursework. However, specialized master's programs have become a significant alternative for the person seeking post-baccalaureate work. It is now obvious that higher education underestimated this potential market when it failed to set up programs for older, degree holding professionals who sought to change careers. Because neither adequate flexibility nor high quality pedagogy was available, many older students turned to newly established proprietary programs.

Support for research programs has been good in selected high tech areas. Society's policy makers continue to recognize that the freedom offered by the university is the best environment in which to conduct basic research. Cooperative research organizations and jointly held patents between industry and higher education have become commonplace. With this selective emphasis on academic programs, campuses can be divided into the groups of "have's and have-not's." High tech disciplines often occupy new facilities with nicely appointed offices while the remainder of faculty offices and classrooms are found in decrepit buildings. A simple drive around most campuses shows a "ghetto" neighborhood for the humanities and social sciences set beside a "high tech courtyard" with modern buildings and a manicured landscape. This mirrors society's recent fixation on high tech and its growing impatience with the "high arts."

Campus governance is a curious mixture of strategic management (utilized in developing high tech and business oriented programs) and traditional academic governance, (still used in the humanities and social science disciplines). Today academic administrators publicly recognize these differences which for so long were only subconsciously noted. The mood on campuses varies significantly depending on the discipline from which you hail. Policies for early retirements and buy-out options are commonplace in all institutions. However, except for minor changes to tenure regulations there has been few other changes in faculty personnel policies. Higher education's reluctance to deal with delicate matters of professional development stand in contrast to private industry which since the early 1980's has recognized this factor as a key component in the organization's strategic plan.

For higher education, the long dreaded period has reached its nadir. With the number of traditional college-age students steadily growing for at least the next sixteen years, a mood of optimism is returning to campuses. Today research universities are somewhat smaller than they were ten years ago, but they are still a much-valued part of society. State colleges and universities are diminished in number, with 1 of 10 being closed in the last 7 years and another 2 in 10 undergoing fundamental changes in their mission or structure. Some have merged with neighboring post-secondary institutions, both private and public. The number of liberal arts colleges is 75% of what it was in 1980. The more selective institutions have survived with few changes; for the less selective institutions which have survived, they have restructured their mission to find a market niche. Community colleges have capitalized on the continued growth in avocational interests with their flexibility permitting them to respond quickly to changing student and community needs.

TOOLING AND RETOOLING

From education's perspective, two forces have driven the developments of the last twenty years. First, the fundamental shift from a manufacturing economy to one based on information processing and on services has continued. New businesses based on these growth segments of our society have been formed, while many companies have shrunk as manufacturing increasingly moved to less developed nations. Rather than a boom or bust economy, it has been boom AND bust with businesses in the information and service industries having more job openings than candidates while employees in the manufacturing industries experience high rates of unemployment. Moreover, needed job skills change at an ever quickening pace. Two, three or four career changes in a lifetime is not unusual.

The second driving force is the continued recognition by both industry and students that a college education is the best road to success. For students possessing a degree but seeking a new career, colleges and universities are still viewed as the best source for fundamental job skills. For recent high school graduates, a college degree will not guarantee a job; however, without a degree there is no chance of being employed. With required job skills changing rapidly, people find it necessary to return to formal schooling, not only to update themselves in their current profession but to improve their marketability for possible career changes.

These trends have had a number of important implications for colleges and universities. Because of those seeking to "retool" for a career change, the feared enrollment decline has been mitigated. Overall, nationwide enrollment in colleges and universities has fallen only 1.5%. Yet the composition of the student body has undergone some fundamental and dramatic shifts. Rather than an enrollment graph which is spiked around the ages of 18-25, a graph of college and university students is now nearly rectangular across the ages of 18-45.

Today increasingly students recognize that excellence in the classroom enhances the probability of landing a good job. This coupled with an increase in the proportion of older students means that in today's learning environment students are much more serious about their studies than was true in 1983. As a result students demand high quality instruction. The passive acceptance of poor teaching is a relic of the past, for students know that their marketability depends on high quality training with the latest equipment and techniques. Thus, law suits by students over the misrepresentation of a costly economic good have become commonplace. Faculty members are under increased pressure to offer stimulating and up-to-date classrom material. Because of the greater age span amongst students, there is a wide range of values debated in classroom discussion. As a result classroom interaction has become more heated. The implicit view that the faculty member is somehow superior to the student (leftover from the old days of in loco parentis) has completely disappeared. Faculty who prize the value of the liberal arts find themselves in a smaller and smaller minority, as students focus almost exclusively on the need for vocational skills.

Although there is fierce competition for the continuing education dollar, giving a person the wide set of skills necessary for a new career remains exclusively the responsibility of traditional colleges and universities. The prediction of the 1980s that corporations would be setting-up private four-year colleges has not come to pass.

For higher education, the dreaded conditions of the 1980s and 1990s did not materialize. Although a few institutions did close and some public institutions were merged, most institutions took advantage of the demand from older students by changing their academic programs and finding their niche in the market. Nevertheless, this has been a period of dramatic change for colleges and universities. As in other periods in history, the forces for change have come not from within higher education but are a result of the new values brought to the classroom by the changing mix of students.

YOUTH REJECT SCHOOLING

Despite all efforts by both private and public sectors the United States has continued to slip as an economic and industrial power. The economy continues a slow downward drift as structural unemployment has remained in manufacturing and other heavy industry. Some industries continue to expand with job openings prevalent in selected high tech areas (i.e., biogenetics, chemical engineering, cyrogenies) as well as selected skilled trades (i.e., carpentry, electricians, landscape maintenance).

The expectations of a "micro-millenium" have generally been realized with computing and communications now playing a significant role in people's personal and professional lives. There has been a veritable explosion of available hardware and software for every facet of activity imaginable. Entertainment and business software with varying levels of sophistication are found in every home and office.

These trends working in concert with each other have led to a situation of grave concern for educators. It is obvious that all but the most elite youth are rejecting (formal) education. Although all white collar jobs require a college credential, given the country's population distributions and economic climate, there is little job turnover. Hence there are only few job openings which demand a college degree and in which one can expect to earn more than in an "8 to 5" manual labor position. Thus, there is little motivation to enroll in postsecondary education. Youth are outspoken in their criticism of the poor pedagogical technique used in all aspects of formal schooling whether it be the high school classroom or the college course. Today's youth have been weaned on a steady diet of fast paced information presented in short bursts. They are accustomed to instant feedback and have learned to handle inputs from a variety of stimulii simultaneously. The format of the college course which has changed little over the past century seems archaic to them.

The shifting focus of the 1970s and 80s from concern with professions to concern with avocations has continued. Today's population spends much more time on their hobbies and recreational activities than their counterparts in earlier generations. As a result, a large segment of today's population avoid positions which would infringe on their time away from the office. Finding a manageable and undemanding 8-5 position is a specific objective of many youth as well as older adults.

These societal trends are further exacerbated by the high cost of postsecondary education, which must be borne almost entirely by the family. The federal government has extricated itself completely from the financial aid business. For any but the wealthly who still view it as in their best interests to obtain a college degree, they must borrow a significant sum of money which will require many years to pay back.

With a sluggish economy and public reaction swinging against colleges and universities, higher education has slipped even further on the fiscal agenda of the states. Major research universities are being maintained but nothing more. Many non-selective state institutions have been closed or merged. The worst fears about the future of the non-selective private liberal arts colleges have come to pass; only a few have been able to find their niche in the marketplace. The selective private institutions with significant endowments are vital but not necessarily thriving.

Nearly all of today's students come from at least third generation college families. These students are slated to be in the traditional professions, executives in the major corporations, or entrepreneurs in their own business venture. As a result collegiate student bodies, in addition to being much smaller, are more homogeneous than any time in the last 30 years. Although there are an equal number of men and women enrolled in postsecondary education, the only racial diversity is a result of an increasing number of foreign students who have enrolled at all levels. Enrollment in all but a few professional programs has dropped precipitously so that there is concern over the growing shortage of advanced degree holders in needed specialities within education, industry, and government.

For those who have decided to enroll, their mood is an odd mixture of devotion to learning coupled with a smugness that belies the fact that meaningful careers most likely await each graduate. College students demand high quality instruction, for like their peers who have opted out of schooling, they too have been exposed to stimulating educational materials and live a fast-paced life style.

Faculty on campuses have a feeling of relief, for they know that for whatever reasons their careers in academe have been spared while many of their graduate school colleagues have been forced out. The mood is one of "minding the store" while waiting for better days ahead. The public's critical attitude toward formal schooling is so overwhelming that individual faculties do not attempt to tackle a societal problem of this magnitude. Instead, a spirit of elitism grows on the college campuses as both faculty and students see themselves creating distance between their own lives and those of the "commoners".

LONG TERM MALAISE

As the new millenium approaches, citizens of the United States are hoping for a change in the 25 years of slow but steady decline which has characterized their country's recent economic history. Only a few industrial components of the economy (i.e., communications, computing, biogenetics, and prepared foods) have grown significantly. Computing has become an important aspect of all businesses; however, due to cost and a slow economy it has not penetrated the personal household at the rate that many had projected. Overall the mood of the country is somber.

The revenue streams of federal and state governments have diminished in real terms over the past 15 years as the country has neither the will nor the resources to tax itself more heavily. With a slumping economy and an aging population, the demand for governmental social services is great. Governments have struggled to formulate innovative programs which would speak to the country's needs; however, nearly all of these have been blocked by competing interest groups. Inaction has marked the last twenty years of government with some exceptions. Higher education might be regarded as one of these exceptions.

As the country progressed through the 1980's, the long awaited enrollment decline did materialize, with full force! A number of factors worked together to cause this. Jobs for college graduates were scarce and did not pay significantly greater salaries than those for common help in the service industries. The long heralded advent of lifelong learning did not materialize. Most scholars of the subject have concluded that people are not as innately curious as the movement had unwittingly assumed in the 1970s. In the early 1980s higher education was unsure of its future. Yet uncharacteristically, it responded strategically and aggressively. During this period faculty governance associations viewed this realignment of campus power with a wait-and-see attitude. For a brief period, cautious optimism swept the campuses. Administrators assumed increasing authority to manage the affairs of their campus, while both federal and state officials called for needed reform at all levels of education as the best way to bolster a sagging American society. Yet with the economy remaining in a slump, not only were public funds to support innovations not forthcoming, but states found it necessary to continue to retrench public higher education. With renewed confidence in their managerial expertise and political acumen, many university presidents responded by organizing confrontations with state governments as a strategy for receiving necessary funds.

State governments reacted by intervening to decide which public campuses would be retained and which ones would be closed for needed cost savings. With the support of state coordinating boards, state governments moved with unusual dispatch to merge or close institutions. In response, faculties chose two courses of action, neither of which were effective. They either unionized quickly with the hopes that collective power would thwart these mergers and closures; or they lobbied vociferously on behalf of the autonomous university and the need for traditional academic values. Any possibility of programmatic change on campuses was impossible, for governance mechanisms were paralyzed, due to the threat which faculty perceived.

This circumstance did not go unnoticed by either industry or the larger public. Industry found it increasingly difficult to conduct business with higher education, as the institutions were mired down in internal political maneuvering or unionized bureaucracy. The public viewed most colleges and universities as reactionary to needed pedagogical change. Although the citizenry generally recognized the need for post-secondary education, they view the current structure as out-of-touch, not unlike the cloistered monastery which seems oblivious to the swirling environment in which it exists.

Those faculty who were seeking rewarding work and had other career options have left the academy. In part this has been caused by today's student who recognizes that education is a costly economic good and therefore demands high quality instruction with up-to-date equipment. As a result, faculty are under increasing pressure, a strain which many have decided not to tolerate. In some cases faculty have turned to their unions to protect them from student "demands"......some would term it harrassment.

Today higher education finds itself a shrunken image of its former self. Research universities continue to manage, although their laboratory facilities have eroded considerably. There is doubt as to whether they can ever return to their former stature. State colleges have been the most severely hit of public institutions. Although most remain open, a number have been closed or merged with local community colleges or private liberal arts colleges as a means of staying open. The morale of their faculties resembles the downtrodden spirit of public school teachers in the 1970s and 80s. Many private liberal arts colleges have closed. The more selective institutions do remain, assuming the same role that private boarding schools assumed relative to public high schools in the 1960s. Community colleges have continued to follow the same course throughout the last 30 years. Their flexibility has served them well. Although they too have been cut back, they continue to meet the needs of their community in a wide variety of ways. However, they too have been forced to step back from the high quality higher education mission which they had mapped out for themselves.

Like a patient with a long bout of a near fatal illness, there is the question of whether the former health of higher education will ever be restored.

A NEW INDUSTRY IS BORN

In this scenario, many of the hoped for changes in the economy and society have taken place, but from the perspective of higher education the results are nothing short of revolutionary. The economy has regained some of its lost momentum as the fundamental move from manufacturing to post-industrial activities begins to shake down. However, the hoped for stability in economic growth has not come about; instead the economy is volatile, marked by spurts of growth followed by double digit inflation. As a result, the funds to support state and federal government programs continues to be an issue. The entrepreneurial spirit in the country continues to burgeon as both policy makers and individuals recognize that innovative activity holds the key to American's future success. Both federal and local governmental policies have been created to foster new businesses, with the hope that this will create long term and steady growth in the overall economy. The country's and indeed the world's focus continues to be on "high tech" industries with more and more of the manufacturing shifting to developing countries. The predicted revolution in computing and telecommunications has had a far greater impact on business, education, and home life than all but the most far-fetched predictions of the 1980s had envisioned.

Although the last twenty years have been ones of rapid change and continual soul-searching regarding the future of the United States, the country's citizenry continues to recognize the fundamental importance of education. The possession of marketable skills is seen by all socio-economic classes as essential for economic success and self-fulfilling work. Skills are viewed as the key to vocational success with decreasing emphasis placed on the education of the whole person. Given the rapid pace of change, people now expect that they will have three, four or even five different careers in their working lifetime. Thus formal education is viewed as an intermittent but essential life-long activity. Because effective skill acquisition is so closely tied to employment opportunities, students have become outspoken in their demand for high quality instruction. Because higher education takes place throughout one's life, the trade-off between income and cost of attending higher education is more obvious than any time in our history. It is now recognized that the single largest expenditure any individual makes is for education. Thus students have become careful and outspoken consumers of education.

During the period of the demographic downturn in traditional college-age students, both the federal government and nearly all states opted to let market mechanisms decide which institutions would thrive and which would fail. This was not surprising, for it was consistent with the entrepreneurial spirit of free enterprise which was sweeping the country. At the same time, however, public officials recognized the long term importance to the country of maintaining a viable post-secondary industry. Thus, students were given adequate financial aid support to attend the institutions of their choice. Some states instituted taxing policies which taxed a family from the birth of a child so that funds would be available in the form of financial aid throughout the child's life.

This entrepreneurial and management spirit also swept college and university campuses during the 1980s. As institutions felt increasingly threatened by the uncertainty of the future, the traditional norms of careful, sometimes lethargic academic governance mechanisms were replaced by a willingness to move rapidly to try out new organizational arrangements. Research universities led the charge in this arena as they rushed to establish private research corporations. Faculty members in high tech areas took action on the long held recognition that they were collections of entrepreneurs with highly marketable skills. In increasing numbers they moved to set up organizations which were outside the university. Strategic management became the accepted norm for higher education. This fundamental change in governance values accompanied by a worsening financial situation led some colleges at many major universities to break away from the parent organization and set up their own independent schools. This was supported by the financial aid policies of the state governments and the increasingly profitable research arrangements made with corporations. Thus the traditional, comprehensive research university began to break down.

All of these trends led to a fundamental reorientation in society's outlook on postsecondary education: Skills, not degrees, were seen as the most iomportant outcome of an education. Consumers of education wanted to be able to decide on their own what institution they would attend. With society continuing to recognize the importance of higher education and an entrepreneurial spirit sweeping the country, entrepreneurs recognized the possibility of establishing proprietary institutions. These ventures would not make large profits, but they were viewed as important and respected contributions to society. Hence, there was an explosion of new forms of post-secondary education. Collectives of faculty members set up small professionally oriented training programs. Private corporations established larger, more comprehensive programs. Even the single individual who was highly skilled and an effective teacher could hang out a shingle and offer education. This was made possible because employers looked to demonstrable skills for hiring.

Thus a new industry has been formed. It is definitely higher education in the traditional meaning of that phrase; however, the structure of the industry is significantly different than 20 years earlier. Major research universities have undergone the most radical restructuring. State colleges have diminished significantly in numbers as students opt to attend institutions which are less bureaucratic and more personable. Many less selective liberal art colleges have closed, while the more selective ones maintain their clientele consisting primarily of traditional college-aged students from upper class families. Community colleges have flourished as they have been able to respond quickly to fill the niches of program demand not covered by others.

Corollaries

(1) As individuals must **become** more aware of and sensitive to the non-American world, continue to support the objectives of International Education.

(2) Assess the College's role in the character development of its students.

Summary

The number of high school graduates will bottom out in 1992. Future enrollment growth will be modest and shaped by many external forces, particularly the status of the economy, and the ability of community colleges to attract and retain minorities, women, and the elderly.

Important economic indicators such as unemployment and employment rates show improvement. However, there is a concern that interest rates may rise. Short-term occupational predictions and labor-force projections point to a strong growth of jobs in the white-collar service sector - especially wholesale and retail trade, business, and medical services. Current projections suggest that growth in high-tech jobs will not be substantial and that there will be a growing shortage of skilled workers to fill the millions of new jobs expected by the end of the decade. Long-term occupational predictions suggest hundreds of jobs in new and emerging fields. Many of these jobs will require advanced technical skills.

Given the inexactness of occupational and employment forecasts and the great mobility of the labor force, many career personnel and educators maintain that the best preparation for employment is a good liberal arts education.

The Maryland economy continues to do well although future growth may be less dramatic and extensive than the past. Short-term occupational projections in Maryland and metropolitan Baltimore will follow national projections with the growth of jobs in the service sector.

Survey research indicates that while Americans are generally optimistic about their personal futures, they are less optimistic about the future of people in general. New research points to the emergence of nine adult life-style groups with differing values and bahaviors. Prominent futurists predict that the current social changes in Sweden will come to America within the next ten years.

Changes are anticipated in legislations of interest to higher education. The Congress has acted upon many pieces of legislation of general interest to higher education and of specific interest to community colleges. In Maryland, community colleges have received an increase in state funding.

Recent reports are highly critical of the quality and worth of higher education and efforts to improve the quality of education are underway. The future of higher education is unclear but many experts agree that fundamental changes will effect colleges and universities in profound ways in the next few decades.

FOOTNOTES

1. The BLS has developed trend projections using moderate, low and high growth economic scenarios in the preparation of an economic outlook for the 1990's. This data contains a variety of useful implications for future economic growth, distribution of demand, employment, and personal consumption.

2. Some observers predict an "electricity crisis" by the end of the decade, beginning in the Northeast before spreading to the rest of the country, and Allen E. Murray, President of the Mobil Corporation, (Newsweek, June 10, 1985) predicts an energy shortage before the end of the century.

3. At least in the short-term such growth is vulnerable to cutbacks according to Business Week, (July 8, 1985). Spending on health care has risen so fast that the government and private sector are beginning to cap costs resulting in employment changes. Furthermore,the notion that services are insulated from foreign competition is being broken down, and service jobs do not generate as much growth because they are less productive and lower paying.

4. A partial list of future occupational titles drawn from Emerging Careers: New Occupations for the Year 2000 and Beyond, by S. Norman Feingold and Norma Reno Miller, may be found in Appendix A., p.129.

5. One of the best articles is Kathryn Mohrman's "Liberal Learning is a Sound Human Capital Investment," Educational Record, Fall, 1983. It is an excellent discussion of the benefits of liberal learning for career preparation, and contains a review of empirical research to support this position. Furthermore, it provides examples of colleges and universities which have been successful in linking both liberal education and career and occupational training. A copy of this article may be found in Appendix B, p.130.

6. This growing discrepancy between supply and demand was also noted in The Chronicle of Higher Education, May 16, 1984.

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APPENDIX A

Occupational Titles of the Future

Here is a list of job titles that might appear in a *Dictionary of Occupational Titles* of the future:

- Aquaculturist
- Armed courier
- Artificial intelligence technician
- Arts Manager
- Asteroid/lunar miner
- Astronaut
- Battery technician
- Benefits analyst
- Biomedical technician
- Bionic medical technician
- Cable television auditor
- Cable television salesperson
- CAD/CAM technician
- Career consultant
- CAT scan technician
- Certified alcoholism counselor
- Certified financial planner
- Child advocate
- Color consultant
- Communications engineer
- Community ecologist
- Community psychologist
- Computer:
  - analyst
  - camp counselor/owner
  - designer
  - graphics specialist
  - lawyer
  - microprocessor technologist
  - programmer (software writer)
  - sales trainee
  - security specialist
  - service technician
- Contract administrator
- Cosmetic surgeon
- Cryologist technician
- Cultural historian
- Cyborg technician
- Dance therapist
- Dialysis technologist
- Divorce mediator
- EDP auditor
- Electronic mail technician
- Energy auditor
- Ethicist
- Executive rehabilitative counselor
- Exercise technician
- Exotic welder
- Family mediator/therapist
- Fiber-optics technician
- Financial analyst
- Financial consultant
- Forecaster
- Forensic scientist
- Fusion engineer
- Genetic biochemist
- Genetic counselor
- Genetic engineer technician
- Geriatric nurse
- Graphoanalyst
- Hazardous waste technician
- Health physicist
- Hearing physiologist
- Hibernation specialist
- Home health aide
- Horticulture therapy assistant
- Hotline counselor
- House- and pet-sitter
- Housing rehabilitation technician
- Image consultant
- Indoor air quality specialist
- Information broker
- Information research scientist
- Issues manager
- Job developer
- Laser medicine practitioner
- Laser technician
- Leisure counselor
- Licensed psychiatric technician
- Market development specialist
- Massage therapist
- Materials utilization technician
- Medical diagnostic imaging technician
- Medical sonographer technician
- Microbial geneticist
- Microbiological mining technician
- Mineral economist
- Myotherapist
- Naprapath
- Neutrino astronomer
- Nuclear fuel specialist
- Nuclear fuel technician
- Nuclear medicine technologist
- Nuclear reactor technician
- Nurse-midwife
- Ocean hotel manager
- Ombudsman
- Oncology nutritionist
- Orthotist
- Paraprofessional
- Peripheral equipment operator
- PET scan technician
- Physician's assistant
- Planetary engineer
- Plant therapist
- Plastics engineer
- Pollution botanist
- Power plant inspector
- Protein geometrician
- Radiation ecologist
- Recombinant DNA technologist
- Relocation counselor

U.S. DEPARTMENT OF ENERGY

Energy consultant reviews thermograms and photographs in a heat-loss survey to show homeowners where they can save money. Energy industries offer a broad variety of job opportunities requiring a range of skills. In addition to workers with traditional skills—such as welders, pipefitters, carpenters, materials handlers, and truck drivers—emerging energy careers will require more and more people with knowledge in a number of areas.

- Retirement counselor
- Robot:
  - engineer
  - salesperson
  - scientist
  - technician (industrial)
  - trainer
- Security engineer
- Selenologist (lunar astronomer)
- Shrimp-trout fish farmer
- Shyness consultant
- Software club director
- Software talent agent
- Soil conservationist
- Solar energy consultant
- Solar energy research scientist
- Solar engineer
- Space botanist
- Space mechanic
- Sports law specialist
- Sports psychologist
- Strategic planner
- Systems analyst
- Tape librarian
- Telecommunications systems designer
- Thanatologist
- Transplant coordinator
- Treasure hunter
- Underwater archaeologist
- Underwater culture technician
- Volcanologist
- Waste manager
- Water quality specialist
- Wellness consultant

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APPENDIX B CONTAINS COPYRIGHTED MATERIALS AND THEREFORE IS NOT AVAILABLE.

SEE: MOHRMAN, KATHRYN. "LIBERAL LEARNING IS A SOUND HUMAN CAPITAL INVESTMENT," EDUCATIONAL RECORD, FALL, 1983, PP. 56-61.

ERIC CLEARINGHOUSE
FOR JUNIOR COLLEGES
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